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THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

ISSUED MONTHLY

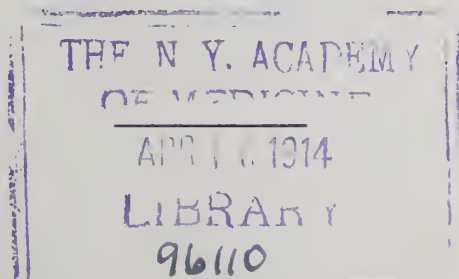
UNDER THE DIRECTION OF THE COUNCIL

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OF THE

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Next Annual Session, West Baden, September 25 and 26, 1913

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VOLUME VI

FORT WAYNE, IND., JANUARY 15, 1913

NUMBER 1

SPECIAL ARTICLES

THE YEAR'S PROGRESS IN MEDICINE

A REVIEW OF MEDICAL LITERATURE

CHARLES P. EMERSON, M.D.
INDIANAPOLIS

A complete review of the literature of internal medicine for the past year would manifestly be out of the question in so limited space. A critical review would be a much more difficult matter, for who can discount the future value of any contribution? Who is free from prejudice concerning contributions on subjects not entirely new? We confess frankly, therefore, that in this review we mention those articles only which have interested us.

Tuberculosis is, without much doubt, the disease which receives most space in the medical journals. That phase of this subject which just now seems most interesting is the treatment of pulmonary tuberculosis by compression of the diseased lung. The writings of Forlanini and Brauer attracted wide attention and now reports of cases thus treated have appeared in the journals of Italy (Faginoli), Hungary (Seharl), Austria (Breseiano), Germany (Volhard), Belgium (Geeraerd), England (Pearson), America (Lapham and, among the best, Gekler), and doubtless of other countries. There is a rare unanimity of opinion in favor of this treatment.

Some find it good in advanced cases, others in very early cases; some in cases without many pleural adhesions, and others whether there are many adhesions or not; some in unilateral cases while others say that in bilateral cases both lungs are benefited, the one by the compression, the other since spared the toxemia from the compressed side. There is but one possible conclu-

sion; it must be good for all cases. Lapham, compiling the reports of 400 cases, finds that at least 40 per cent. of those thus treated, and the most were advanced cases, were permanently cured.

The tuberculin treatment for tuberculosis, opinions concerning which swing in pendulum-like fashion, is just now in not quite as much favor as it was a couple of years ago. Brown¹ believes that the incipient cases do somewhat better, while moderately advanced cases do much better than those not so treated. The climatic treatment of tuberculosis is now not emphasized at all and the general opinion seems to be that it makes not nearly so much difference where the patient is, as what he does when he gets there. Voorsanger² believes that climate plays the least important rôle of all of our therapeutic aids in the treatment of pulmonary tuberculosis, and that the most important thing is to develop the technic of home treatment. The x-ray methods of early diagnosis have proven themselves of great value, and this is so widely accepted that during the past year less has been written of it. But the "cough phenomenon" is new. The normal lung apex on fluoroscopic examination usually is somewhat shaded. When, however, the patient coughs, the air which the initial deep inspiration draws into the lung is forced into the apex, inflates it and clearing its shadow, unless it be somewhat indurated as occurs in beginning tuberculosis.³ In this connection it is almost amusing to note the way that the clear, conclusive demonstrations of Fetterolf and Norris⁴ have revealed the baneful influence of tradition in medical teaching. The reasons why the physical signs over the right apex are, in the normal case, different from those

1. Brown: Am. Jour. Med. Sc., October.

2. Voorsanger: Am. Jour. Med. Sc., October.

3. Kreuzfuchs: München. med. Wchnschr., ix, 80.

4. Fetterolf and Norris: Am. Jour. Med. Sc., May, 1912; Arch. Int. Med., February, 1909.

over the left, are not as stated in all of our textbooks, but are due to the anatomical relations of the apices to the trachea and to the large blood-vessels of the neck. Much's granules in the sputum are again discussed.⁵ These would appear to be fragments of tubercle bacilli and are supposed to have the same diagnostic value as they. These granules can be found always with the bacilli, while in about 10 per cent. of the cases of pulmonary tuberculosis the sputum contains them but no morphologically perfect bacilli. Their number has no prognostic value. They can be recognized only in specimens of sputum treated with antiformin. It is indeed interesting to those who followed the bitter discussion of five years ago concerning the occurrence of tubercle bacilli in the circulating blood of patients with tuberculosis to note that Ranström⁶ is able to find them in the blood of febrile cases. A test proposed by Braun and Husler⁷ for the increase in globulin of the cerebrospinal fluid may be of some value. To 1 c.c. of the fluid are added 5 c.c. of N/300 HCl. If the clear fluid clouds it is evidence of meningitis, presumably tuberculous, or of uremia or paresis. The tendency to multiply the varieties of the tubercle bacilli continues and at least two more have been added during the last year, one of them the cause of lupus vulgaris. Lastly, Jordan,⁸ takes issue with the present opinion concerning the non-inheritance of tuberculosis. In his opinion heredity is the most important factor, and he believes that the fight against it will accomplish little unless we control the marriage of consumptives.

The vaccine treatment of typhoid fever finds in Callison,⁹ as well as in others, a loyal champion. His argument is indeed hard to answer. Of a series of 423 cases collected from literature, thus treated, but 5.4 per cent. died. Vaccination against typhoid fever seems to have more than fulfilled our expectations. The reports from the Army and from hospitals whose nurses are thus protected are most conclusive, for the incidence of this fever if decreased to about one-tenth its former figures, and the cases which did occur ran very mild courses.¹⁰ We hear much less this year about typhoid carriers. They are accepted facts.¹¹ Stone treats them by vaccination,¹² Schumacher¹³ believes that the quarantine of these

fever patients should continue for at least six weeks after the temperature has become normal. One of the very lively discussions of this year is the diet of typhoid-fever patients. Some advise to keep the patient in constant body-weight during the whole course of the fever by means of a diet of high caloric value.¹⁴

Paratyphoid fever has attracted considerable interest.¹⁵ Bontemps, interestingly enough, refers to this disease as a "meat infection."¹⁶

Acute Poliomyelitis is now a very interesting subject. A most exhaustive report has appeared from the Rockefeller Institute. We now know a great deal about this disease clinically. Flexner¹⁷ states that the germ enters and leaves the body by way of the nasal mucosa. Howard and Clark¹⁸ have proved that the domestic fly and bedbug can carry the virus, but not mosquitoes and lice. Neustadter and Thro of Cornell University¹⁹ have shown that it can be spread by dust. The only way at present by which the germ of this disease can be demonstrated is by the production of the paralysis in the inoculated monkey. Pathologically, it is now well recognized that the lesions of this disease are not limited to the anterior horns, but are scattered generally throughout the nervous system. Unfortunately, there has been no advance in the treatment of these unfortunate cases.

Salvarsan is now the so unanimously accepted treatment of syphilis that one German writer says that treatment without it would be "unthinkable." We now have recovered from the disappointment produced by the discovery that one dose would not produce a complete cure as was at first supposed. Emphasis is now laid on the repetition of the dose and a combination of this drug with all other well-known remedies. Neosalvarsan is now accepted as preferable to salvarsan because of its solubility and its less irritating properties. In a very interesting series of papers the anaphylactoid reaction following repeated dose of salvarsan has been emphasized.²⁰ This reaction consisted of dyspnea, congestion of the head, paroxysmal cough, vomiting, and pains in the back. The symptoms are very severe for a while, but in no case did they prove serious. It is evidently due not to arsenic as such, but to the salvarsan, since these patients did not react after an injection of neosalvarsan. Brückler²¹ noted this reaction in

5. Körber: Deutsch. med. Wchnschr., August 8.

6. Ranström: Deutsch. med. Wchnschr., August 16.

7. Braun and Husler: Deutsch. med. Wchnschr., June 20.

8. Jordan: Jour. Am. Med. Assn., No. 17.

9. Callison: Am. Jour. Med. Sc., September.

10. Spooner: Jour. Am. Med. Assn., October 12. Hachtel and Stoner: Jour. Am. Med. Assn., October 12. Broughton and Alcock: Deutsch. med. Wchnschr., September 12.

11. Brückner: Deutsch. med. Wchnschr., August 8.

12. Stone: Am. Jour. Med. Sc., May.

13. Schumacher: Deutsch. med. Wchnschr., November 28.

14. Coleman: Am. Jour. Med. Sc., November.

15. Freund: Deutsch. Arch. f. klin. Med., p. 325 (et al.).

16. Bontemps: Deutsch. med. Wchnschr., No. 50.

17. Flexner: Jour. Am. Med. Assn., October 12.

18. Howard and Clark: Jour. Exper. Med., xvi, 850.

19. Neustadter and Thro: Deutsch. med. Wchnschr., April 11.

20. Iwaschenkow: München. med. Wchnschr., No. 15.

21. Wechselmann: Deutsch. med. Wchnschr., June 20.

21. Brückler: Deutsch. med. Wchnschr., August 22.

9 per cent. of his cases. He differs with previous writers, however, in that he does not find that it occurs especially in cases with cerebral lues. Swift,²² following out this work, produced the condition in guinea-pigs and pronounces the reaction as anaphylactic. The remarkable achievement of Noguchi of growing *Treponema pallidum* in pure culture has been amply confirmed, and others are proposing easier and better methods.²³ The special number of *The Journal of the American Medical Association* (Oct. 5, 1912) contains much of interest concerning this disease.

Much has appeared concerning malaria, but nothing of as great interest as the reports of Bass,²⁴ who has succeeded in cultivating the malarial plasmodia.

The only interesting debate concerning diphtheria is that aroused by the statement of Conradi and Bierast,²⁵ that in one-third of the cases, both during the disease and during convalescence, they were able easily to find *Bacillus diphtheriae* in the urine. They admit that the bacilli found were very few in number, but feel that this source may explain some of the epidemics which have evidently been spread by the milk-supply. Koch²⁶ of Neisser's Laboratory at once challenges in part this claim. He doubts that all the organisms they found were *Bacillus diphtheriae*. Testing those he found by cultures and animal inoculation, virulent bacilli were in the urine of but two of twenty-six cases and these two were severe early fatal cases. He was able to find pseudo-diphtheria bacilli in the urine of patients with scarlet fever. Darling²⁷ reports the occurrence of anaphylactic serum disease over six years after the primary injection of horse-serum. The local application of diphtheria antitoxin is often used to clear the throat and nose of these organisms. Lorey²⁸ claims that one succeeds as well with normal horse-serum diluted from fifteen to thirty times and recommends this treatment for all inflammatory throat infections. Ravenel²⁹ recommends that the throat and nasal passages of patients with diphtheria be sprayed with pure cultures of *Staphylococcus aureus* to free them from persistent growths of diphtheria bacilli.

The relation of epidemic tonsillitis to the milk-supply has been mentioned in several articles. The relation of the tonsils to systemic infections has been worked out by Rosenow and others.

Davis³⁰ finds that a streptococcus infection of the tonsils is apt to affect especially the joints, seldom the heart; that a pneumococcus infection affects the heart especially, the joints more rarely. Libman³¹ has shown the possibility of cure in cases of endocarditis in which positive blood-cultures were obtained. Eppinger³² reports three very interesting cases of nephritis which promptly cleared up after tonsillectomy.

Interest in pellagra still continues and the report of the Illinois commission is worthy of study.³³

The most interesting articles on scarlet fever are those discussing Döhle's inclusions in the leukocytes. Kretschmer³⁴ found them in practically all early cases of scarlet fever, but also in certain other infections, especially in diphtheria and septic diseases, which he says cannot be confused with scarlet fever (?). The granules are therefore important in diagnosis. These enclosures are best stained with Manson's methylene-blue stain. They number from one to six in the leukocytes, are round or oval in shape, some crescentic and are about the size of cocci.

An interesting find in two cases of amoebic dysentery is an enterogenous eosinophilia³⁵ which seems to bear no relation to a general eosinophilia. Myelocytes were found in the intestinal contents. Here, again, is evidence of the local origin of the eosinophils. Edelmann and Karpell³⁶ report four interesting cases of bronchial asthma with an elimination of great numbers of these cells in the urethra.

The medical journals have been filled with articles on cardiovascular conditions, illustrated by polygraph records. Especially numerous have been the studies made with the electrocardiograph. The Einthoven apparatus is so large and expensive that very few are in use and so a critical estimate of these studies is now not possible. It would seem that the results, while interesting, have thus far not been very important from the physiologic or clinical point of view, while Hering³⁷ finds many variables, and three of them important, in the application of this instrument. He says that no two cases are alike; that there is no "normal" electrocardiogram, only individual ones. The micrograph of Crehore and Meara seem not to fulfil the expectations concerning it. Austin and Piersol³⁸ find that

22. Swift: Jour. Am. Med. Assn., No. 14.

23. Nakano: Deutsch. med. Wchnschr., July 11. Schereschewsky, Sowade: Deutsch. med. Wchnschr., April 25.

24. Bass: Jour. Exper. Med., Oct. 1, 1912.

25. Conradi and Bierast: Deutsch. med. Wchnschr., August 22.

26. Koch: Deutsch. med. Wchnschr., No. 50.

27. Darling: Arch. Int. Med., x, 440.

28. Leroy: Med. Klin., No. 26.

29. Ravenel: Jour. Am. Med. Assn., August 31.

30. Davis: Jour. Infect. Dis., x, 148.

31. Libman: Am. Jour. Med. Sc.

32. Eppinger: Wien. klin. Wchnschr., No. 24.

33. Abstr. in Arch. Int. Med., x, 123, 219.

34. Kretschmer: Berl. klin. Wchnschr., No. 49.

35. Albu and Werzberg: Zeitr. f. klin. Med., Bd. 74.

36. Edelmann and Karpell: Deutsch. med. Wchnschr., July 4.

37. Hering: Deutsch. med. Wchnschr., p. 235.

38. Austin and Piersol: Am. Jour. Med. Sc., June.

this instrument has no advantages over the mirrormanometer of Frank, which is an easier instrument to use. Studies with this latter instrument are reported by Veiel³⁹ and by Müller and Weiss. Some very careful studies in orthodiagraphy have been made,⁴⁰ and these would seem to be of value. The seventh case of Stokes-Adams syndrome with complete heartblock and practically normal bundle of His, is reported by Pepper and Austin.⁴¹

Fisher's very interesting publications on urinary secretion, edema and the care of nephritis, are receiving very careful study. We believe that the results may be summed up as follows: While the physiology of these studies may be correct, the methods proposed by Fisher have met with very little success when applied to the patient. High blood-pressure itself is not a disease nor a symptom of disease, but evidence of the attempt of Nature to maintain efficient circulation in the presence of a resistance, usually of renal origin. Osler⁴² divides the cases of high blood-pressure into three groups: First, those without manifest arterial or renal disease; second, cases of arteriosclerosis with secondary renal and heart disease; third, cases of chronic nephritis with secondary arteriosclerosis and heart trouble. He recommends reduction of diet and abstinence in the use of alcohol, as the most important treatment.

Schlesinger⁴³ calls attention again to Rosenbach's disease, that is of paroxysmal dilatation of the abdominal aorta of reflex origin.

The use of the *x*-ray in the study of gastro-intestinal disease is now beginning to attract the attention it deserves. There is perhaps no greater recent advance in medical diagnosis than this. Gastric and duodenal ulcer, malignant disease, obstruction by adhesions anywhere along the gastro-intestinal tract now can be diagnosed almost as positively in this way as by surgical exploration. (Note the recent work of Holzknecht, Haudek, Schwarz, Kienböck, Zabel, Eisler and of Cole.) Of all gastro-intestinal diseases ulcer, especially duodenal, seems the most popular subject this year. (See the articles of Bier, Aaron, Ewald, Friedenwald, and especially that of a surgeon, Moynihan.) Moynihan goes so far as to say that the medical symptom complex named hyperchlorhydria fits well as a good description of duodenal ulcer. What promised to be a very valuable test of gastric motility is proposed by Boaz.⁴⁴ The patient whose stomach has been washed receives 400 c.c. of water containing

20 drops of concentrated aqueous solution of chlorophyll. In thirty minutes the tube is passed and as much fluid obtained as possible. Then the stomach is washed. Since chlorophyll is not changed in the stomach, the amount siphoned and washed out can be estimated colorimetrically. Verbrycke⁴⁵ emphasizes the importance of chronic cholecystitis of a mild catarrhal form as the explanation of many cases of "dyspepsia." Lissauer⁴⁶ maintains that there are fatty changes in the secretive cells of the pancreas and interstitial pancreatitis, due to alcohol, a condition comparable to alcoholic cirrhosis of the liver. (Friedreich's "toper's pancreas," 1876.) This may explain the frequency in which glycosuria is seen in alcoholics.

X-ray is important even in the diagnosis of constipation. Indeed we believe that no case of constipation which does not yield readily to usual treatments should be further treated until a suitable series of plates has been made. Jordan⁴⁷ calls attention to the reciprocal relationship between the duodenum and appendix in chronic constipation. Wertheimer⁴⁸ believes that Ehrmann's test meal containing palmin is of value in the functional diagnosis of the pancreas. Harris⁴⁹ has demonstrated the uselessness of the various intestinal antiseptics (salol, beta naphthol, etc.) and teaches that diet is the best method. Schaal⁵⁰ reports cases of painful contraction of the small bowel, simulating ilcus, ulcer, etc., due to round worms.

Internal secretions are of increasing importance in literature, yet more emphasis is now laid on the vegetative nervous system (the autonomic nervous system). Oswald⁵¹ among others, believes that Basedow's disease is due primarily, to increased tonus of the autonomic nervous system. It is, in other words, a primary neurosis. One result is hypersecretion of the thyroid gland, and this in turn causes still greater nervous tonus. The result is a vicious circle. Kocher⁵² emphasizes the latent cases of thyroid disease and also the blood-changes due to this condition. Hooten⁵³ calls our attention again to the *x*-ray treatment of this disease which he thinks has cured ten out of fourteen cases. Solis-Cohen⁵⁴ contributes a long article on the medical treatment of exophthalmic goiter which he believes now cures from 25 to 30 per cent. Musser⁵⁵ called attention to

39. Veiel: *Deutsch. Arch. f. klin. Med.*, p. 249.

40. Otten: *Deutsch. Arch. f. klin. Med.*, p. 370.

41. Pepper and Austin: *Am. Jour. Med. Sc.*, May.

42. Osler: *Brit. Med. Jour.*, November 2.

43. Schlesinger: *Deutsch. med. Wchnschr.*, August 22.

44. Boaz: *Deutsch. med. Wchnschr.*, p. 455.

45. Verbrycke: *Am. Jour. Med. Sc.*, May 12.

46. Lissauer: *Deutsch. med. Wchnschr.*, p. 1972.

47. Jordan: *Brit. Med. Jour.*, June.

48. Wertheimer: *Ztschr. f. klin. Med.*, lxxvi, 57.

49. Harris: *Jour. Am. Med. Assn.*, October 12.

50. Schaal: *München. med. Wchnschr.*, No. 48.

51. Oswald: *Schweiz. med. Wchnschr.*, No. 30.

52. Kocher: *Deutsch. med. Wchnschr.*, July 4.

53. Hooten: *Brit. Med. Jour.*, June 8.

54. Solis-Cohen: *Am. Jour. Med. Sc.*, July.

55. Musser: *Am. Jour. Med. Sc.*, June.

the number of cases of this disease which get well without treatment and ends finally with the conclusion that "the surgeon does too much and the internist too little in the treatment of goiter." Musser recommended that this medical treatment run from six to twenty-four months. Percy reports two cases of chronic nephritis much improved by thyroid extract and now one hears mention of the "hyperthyroid group" of chronic nephritis cases.

The parathyroid glands continue to attract some attention. Proescher and Diller⁵⁶ record the first cases of tetany in the adult with hemorrhages into these glands. Bower⁵⁷ published a very important paper on the functional tests of the autonomic nervous system. The pituitary gland also is gaining in interest as of first importance among the ductless glands, especially since the publication of Cushing's work. It would seem to be a controlling center of all these glands.

The phthalein test of Rountree and Geraghty certainly deserves special mention, since of all functional renal tests it alone seems to have fulfilled all the claims originally made for it.⁵⁸ It is valuable not only to the surgeon, but also to the internist. The functional tests of hepatic function have not yet proven of any clinical value.⁵⁹

Diabetes insipidus, especially the idiopathic variety, is now attributed to the increased irritability of the autonomic nervous system.⁶⁰

The early diagnosis of carcinoma by the hemolytic quality of the blood-serum of these patients, has received considerable attention. Dungern claimed that this test was always positive in cancer. Rosenberg⁶¹ says that it is not constant in cancer and occurs in other conditions. The careful work of Gorham and Lissen⁶² on Elsberg-Neuhof-and-Geist's modification of this test for cancer, deserves especial mention. They believe that it is not accurate if made in the test-tube; that if made hypodermatically it is positive in 60 per cent. in cancer cases and is negative in 80 per cent. of other cases. The article of Theilhaber⁶³ deserves attention. He states that during the last ten years, over 200 cases of the spontaneous healing of advanced cancer have been reported.

Among the articles on diseases of the blood, that of Schaumann⁶⁴ deserves especial mention. He speaks of the latent period of pernicious

anemia during which time the patient often complains of soreness of the edges and the tip of the tongue. He also emphasizes those cases of definite pernicious anemia with normal hemoglobin but with low blood-count and typical poikilocytosis. Several articles on leukemia have appeared in which there is no enlargement of peripheral lymph-glands. (Among others, McWilliams and Haines, *Am. Jour. Med. Sc.*, April. In this case there was a lymphoid nodule in the breast diagnosed as a lymphosarcoma.) Banti, from the large group of cases of primary splenomegaly reports a new disease, "splenomegalia hemolytica" with gradually increasing, long-continued anemia, enlargement of the spleen and liver, slight jaundice and urobilinuria.

Atophan has been tried in many cases of gout and leukemia with fairly satisfactory success. It does seem to increase the uric-acid output.⁶⁵ Duke mentions again his method of calculating the "bleeding time" which determination should be combined with that of coagulation time.⁶⁶

No review of medical literature for 1912 would be complete unless reference were made to the report of the Carnegie Institute on Medical Education in Europe.

THE YEAR'S PROGRESS IN SURGERY

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To one who essays the task of reporting on the progress of surgery for a given time the prospect is certainly bewildering, especially so when the report must interest and please all classes of readers. The general practitioner's appetite must be appeased, while the general surgeon must not find it dull and tasteless. The genito-urinary specialist expects at least a crumb, as does also the orthopedist and the gynecologist. It is manifestly impossible, therefore, to satisfy all these appetites in a short journal article. Some will have to satisfy their hunger for progress from other sources and allow me to deal here with those things which seem to me worthy of place in a state journal.

When one goes back far enough in the art of surgery and compares the then state of the art with its present position, it is easy to discern progress. Not so with a short twelve-month. Yet one year, while exhibiting no epoch-making discoveries, is sure to witness advances which will make, or tend to make, the efficiency of the pro-

56. Proescher and Diller: *Am. Jour. Med. Sc.*, May.

57. Bower: *Deutsch. Arch. f. klin. Med.*, p. 39.

58. *Arch. Int. Med.*, ix, 284. Vogel: *Berl. klin. Wehnschr.*, No. 46.

59. Foster: *Am. Jour. Med. Sc.*, June.

60. Steiger: *Deutsch. med. Wehnschr.*, October 3.

61. Rosenberg: *Deutsch. med. Wehnschr.*, June 27.

62. Gorham and Lissen: *Am. Jour. Med. Sc.*

63. Theilhaber: *Deutsch. med. Wehnschr.*, June 27.

64. Schaumann: *Deutsch. med. Wehnschr.*, June 27.

65. Dohrn: *Ztschr. f. klin. Med.*, p. 445.

66. *Arch. Int. Med.*, p. 445.

fession in the betterment and prolongation of human life more perfect. For after all is said and done this is the end that the physician as well as surgeon, or the devotee of any other form of therapeutics, is, or should be, striving for. The experimental therapist and the experimental physiologist are constantly endeavoring to disclose new properties in drugs which may be applied to the treatment of human ills by the physician. The surgeon watches with an appraising eye all developments in pathology and is ever on the alert to note pathological processes as seen on the operating table, to the end that he may bring more of the diseases which afflict mankind under the beneficent influence of his skill.

As the years go by the decadence of drugging impresses one almost as much as the growth of surgery. Even such a startling advent as that of salvarsan stirs the surface of the dead sea of drug oblivion but for a moment; as soon as the original claims of its discoverer are shown to be unfounded its use declines more than its real merits deserve.

Medicine has in the past shown a tendency to run to fads, and a future historian may so characterize this particular time, nominating useless surgical operations as the form taken. And there can be no doubt that there are those in the profession who are low enough to practice deceit in doing operations. Without question quackery has appeared in surgical ranks. Formerly it was confined to the medical; now there are surgeons who will operate any person from whom they can gain consent—and money.

The progress of surgery was nowhere better illustrated than at New York at the meeting of the Clinical Congress of Surgeons last November. At this session steps were taken to organize the *International Abstract of Surgery*, a publication whose function it will be to place before English readers abstracts of the surgical publications appearing in foreign languages.

Also the appointment of a committee to consider the advisability of establishing a minimum requirement for surgery, and, if it is deemed advisable, adopt a method by which a supplementary fellowship or degree shall be conferred on graduates in medicine who have fulfilled the requirements of the committee.

Also the appointment of a committee to formulate and execute a plan of education among the laity and the general practitioners on the subject of cancer.

Also the appointment of a committee to consider the advisability of attempting the standardization of hospitals.

Any one of these subjects would constitute a sufficient topic for this report, but we must be content with the suggestions arising from their mere mention.

Perhaps chief among the forces for good to humanity developed in the past year is the remarkable work of Dr. Alexis Carrel at the Rockefeller Institute. The Nobel Prize Commission regarded it so highly that it bestowed the Nobel Prize on him. The purpose of the creator of this "Prize" was to honor the man who had done most for humanity during the year and to help him attain greater results. In the case of Dr. Carrel the amount, \$40,000, will go far toward putting him above the necessity of commercializing his discoveries, and allow him to devote his time and energies to unremunerative laboratory drudgery (?).

The work which received this mark of distinction was begun six years ago, at which time he began to investigate how tissues isolated from the organism could be preserved and used after a few days or weeks as grafts. He recognized that it would be very convenient for the surgeon to keep in store pieces of skin, periosteum, bone, cartilage, blood-vessels, peritoneum, omentum and fat, ready to be used. After developing his technique he took the cadaver of an infant which had died during labor and prepared such materials in tubes, keeping them in a refrigerator at $+3^{\circ}\text{C}$. Skin grafts made at this time were used as late as seven weeks thereafter, some of which "took."

In a paper read before the American Medical Association last June, he refers to Tuffier, who had several times used pieces of omentum, peritoneum and cartilage in the reconstruction of joints. In one case of resection of the elbow he covered the surface of the section of the bones with cartilage preserved for five days in cold storage. Also to Magitot, who, in 1911, extirpated the eye of a patient suffering with glaucoma. The eye was placed in a tube containing human serum and kept for eight days in a refrigerator at a temperature of $+4^{\circ}\text{C}$. Dr. Magitot then resected the anterior part of the cornea of a man who had been burned by alkali and was blind as a result of the ensuing scar. A flap of cornea from the eye in cold storage was inserted and seven months after the operation the transplanted cornea had remained transparent and the patient could see through it.

The profession is warranted in looking forward to greater achievements from Dr. Carrel along these as well as other lines.

Our knowledge of intestinal stasis is reviewed and added to by the exhaustive article of Coffey in *Surgery, Gynecology and Obstetrics*, for Octo-

ber, and I cannot refrain from quoting some of his conservative conclusions.

"The large majority of cases of ptosis may be successfully treated and the patient made perfectly comfortable by medical and dietary measures. Surgery should never be considered for the treatment of ptosis cases *per se*.

"Gastric or intestinal stasis not relieved by medical or dietary measures constitutes the only excuse for surgery in this class of cases.

"Given a case of right-sided ptosis with a moderately moveable kidney, painful cecum and appendix, not relieved by medical measures, the proper treatment is removal of the appendix and fixing the ascending colon through a right rectus incision, plus fattening. This will be sufficient to retain the kidney in position.

"An operation which fixes a floating kidney without fixing the colon at the same time is not a sound surgical procedure.

"A mobile cecum, with or without the membrane, in which the hepatic flexure remains fixed, is best treated by fixing the cecum and ascending colon to the parietal peritoneum.

"Mid-line ptosis of long standing not relieved by proper medical treatment, is successfully treated surgically by shortening the ligaments of the liver and stomach, suturing the omentum to the abdominal wall, and expanding the upper abdomen. The results following this method of treating mid-line ptosis with stasis are fully as striking and complete as those produced by a gastro-enterostomy for mechanical obstruction at the pylorus.

"Sigmoid ptosis, producing severe stasis, can only be successfully treated by short-circuiting or excising.

"General visceroptosis, the pathognomonic sign of which is a floating left kidney, is not a surgical condition.

"Only a very small percentage of ptosis cases as they now come to the doctor are surgical; and, further, I concede that in bringing forward this subject of ptosis and stasis we are opening up one of the most dangerous fields for surgical abuses that has ever been opened to the surgical confidence man, who needs no other excuse for performing a surgical operation than the consent of the patient."

During the year also the views of Lane on intestinal stasis have been accorded a wider acceptance. There have been more cases subjected to short-circuiting and excision operations. His ideas about the effect of ileal and duodenojejunal kinks find constantly more adherents, but it is now predicted that several more years of experi-

ence with the subject will be needed to place the operations proposed on a firm basis of professional approval. Just now the procedures are under trial and many men are reserving judgment. When one hears these ideas from Lane himself, one is struck with the reasonableness of them and the earnest convictions of their author. For instance, he states that duodenal ulcer is caused by a kink in the duodenum preventing the free onward passage of the contents. This kink is in turn due to the upright position and all that is needed to cure the ulcer is to place the patient in bed or in a horizontal position. He says these cases are easily diagnosed by the x-ray plate following a bismuth meal. Again one is impressed by the list of symptoms he presents as being caused by kink in the ileum, some of which are kidney lesions, casts, albumin, etc., high blood-pressure, lethargy, somnolence and others, and he cites cases presenting these symptoms cured by removing a part of the colon or short circuiting.

Mention should be made in this place, we think, of the work of Babcock with spinal anesthesia, as he was one of the first to take up the method in this country. In *Surgery, Gynecology and Obstetrics*, for November, he says he has used it for six years. The formula he is now using is as follows:

| | | |
|-----------------------|-------|------|
| Stovaine | 0.08 | gms. |
| Lactic Acid | 0.002 | e.e. |
| Alcohol C. P. | 0.2 | e.e. |
| Distilled water | 1.8 | e.e. |

This is freshly prepared, filtered, sealed in ampules of alkali-free glass and sterilized by Pasteurization. The adult dose is 1¼ e.e. and at one year he gives 1½ egms. He uses this method in all serious operations below the level of the diaphragm and insists on using it in grave forms of sepsis, serious renal disease, or infections of the respiratory tract. The method facilitates operative manipulation, shortens time of operation, increases muscular relaxation, reduces intra-abdominal traumatism, makes shorter incision possible and increases post-operative comfort. It relaxes or paralyzes the sphincter ani, produces marked peristalsis and reduction of the caliber of the bowel. He has seen two cases of obstruction relieved by it before operation could be done. It cures hysterical contractures. He says its use demands precision and careful technic, but believes that no other agent gives an equal degree of relaxation with so little danger. Age is no contra-indication. After injection the patient should be lowered to the recumbent posture to prevent the anesthetic from going high where it

might involve respiratory centers producing respiratory palsy. The explanation of this fact is found in the difference between the specific gravity of the solution and the spinal fluid (less than 1.000 and 1.0065). He claims the anesthesia is really a spinal nerve root anesthesia and not a true cord effect. The effect chronologically is loss of pain sense, loss of tactile and muscular sense, and finally motor paralysis. With high injection a tremendous fall in blood-pressure and loss of consciousness may occur.

Freeman Allen (*Jour. A. M. A.*, Nov. 23, 1912), after studying the results of the work of Jonesco, Tuffier, Bier, Donitz, Ryall, McGavin and O'Leary, and 320 cases of his own, says: "I am firmly of the opinion that this method is not only of inestimable value, but is, in competent hands and carrying out a rigidly correct technic, a perfectly safe method, comparing more than favorably with the more modern methods of producing general anesthesia such as gas and oxygen anesthesia or the administration of ether by the rectal, intravenous or intratracheal method."

The results Jonesco obtained in this country several years ago had a deterrent effect on many men, but it is evident that many who formerly condemned it are now looking on it with favor, and it seems safe to predict that the method has come to stay and will be more extensively used each year.

A reaction is noticeable against the tendency of writers on the treatment of fractures to recommend plating in every case, and a note of warning is sounded by Gibbon and others, who urge the needlessness of such practice, claiming that as good results in many cases are obtained by older methods as can be obtained by the open treatment at a great deal less risk. Gibbon recognizes certain compound fractures as best treated by operation, but protests against the needless employment of the method.

THE YEAR'S PROGRESS IN PATHOLOGY AND BACTERIOLOGY

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In the realm of bacteriology and pathology nothing startling in the way of new discoveries has been brought out during the year 1912. Progress has been made principally in the development and improvement of technic and achievements already made. Among the newer things in the evolution of bacteriologic science recently are

the discovery that Texas fever is transmitted by the tick and that certain diseases, whose etiologic factors were unknown, are caused by ultramicroscopic organisms, so-called filterable viruses, i. e., that filtration through earthenware filters, which are impervious to the known pathogenic organisms, does not remove the ultramicroscopic organisms. It seems therefore that further advances in our knowledge of the acute or unknown infections depends on the discovery of methods of staining by which these ultramicroscopic organisms can be made visible and of culture methods which will propagate them.

THE WORK OF DR. ALEXIS CARREL

Perhaps the most notable occurrence in connection with scientific research in America is the public recognition of the work of Dr. Alexis Carrel of the Rockefeller Institute for Medical Research by his being awarded the Nobel prize in medicine for 1912. This is the first time the prize in medicine has been awarded to an American and we may all feel proud of his brilliant achievements which are bound to be of great value in practical medicine and surgery. In 1903, in a discussion at a surgical society, it was apparently proved that end-to-end anastomosis of blood-vessels could not be done. Carrel by his brilliant work showed that end-to-end anastomosis of both veins and arteries was practicable and that a lost piece of artery could be replaced by another vessel, either artery or vein, for it was shown that the wall of a vein was quite capable of withstanding the extra pressure of arterial blood. As soon as the success of this procedure became certain, Carrel became interested in the question as to whether isolated tissues could be made to retain their vitality and subsequently used as grafts. He began this work six years ago at the Rockefeller Institute and his results have been nothing less than sensational. He has succeeded in transplanting the organs of one animal to another of the same species including kidneys, arteries and veins. He showed that a portion of artery could be preserved in cold storage for days or even weeks and yet could be transplanted and live. In studying tissues preserved in cold storage he used two methods: cultivation and transplantation. His work, together with that of Magitot,¹ who successfully transplanted a human cornea, previously preserved in antiseptic fluid (Ringer's and Locke's solution), and Tuffer, who, in 1910-1911, used pieces of preserved omentum, peritoneum and cartilage in cases of pleurisy and resection of elbows, demonstrated that human

1. *Jour. Am. Med. Assn.*, July 6, 1912.

tissues preserved in cold storage could be used in human surgery. During the year 1912 he has added to his remarkable and phenomenal achievements. In *The Journal of the American Medical Association*, Feb. 17, 1912, with Ingebrightsen, he reports a study to ascertain whether tissues cultivated *in vitro* retained the property of reacting against antigens by producing antibodies. For this purpose, guinea-pig bone-marrow and lymph-glands, cultivated in Ringer's solution in guinea-pig plasma were put in Gabritschewski boxes and washed goats' blood-cells added as antigen. This was incubated for five days at 39 C. The boxes were then opened and the serum tested for hemolytic power. It was found that the serum of the cultures containing goats' blood had acquired the power to markedly hemolyse goats' red blood-cells. They conclude that human tissues living outside the body would also react against antigen by producing antibodies. Most remarkable of all, in *The Journal of the American Medical Association*, Dec. 14, 1912, he reports experiments on what he calls "visceral organisms." In previous articles it was shown that connective tissue could be kept *in vitro* for several months in a condition of active life, and that a fragment of heart could pulsate normally for more than 100 days after its extirpation from the animal. Recognizing the importance, for the study of many problems, of keeping entire organs alive if possible outside of the organism, he attempted to develop a technic by which a system of organs could be caused to live *in vitro*. The method consisted of removing aseptically, *en masse*, heart, lungs, liver, stomach, part of the intestines, pancreas, adrenals, kidneys and spleen of an animal, a cat generally being used, and preserving these organs in Ringer's solution in an incubator at the temperature of 38 C. (100.4 F.), while the lungs were being artificially ventilated. Under this method he succeeded in keeping the organs in an apparently healthy condition from three to thirteen hours. The pulsations of the heart and circulation of the organs, he says, were normal. The intestine emptied itself by peristaltic contractions and the stomach digested a meal of meat. Death seemed to be by paralysis, the organs dying one by one.

It would be impossible in the short time and space allotted me to do anything more than make a more or less brief and disconnected review of the literature of the year.

THE INTERNAL SECRETIONS

There is a growing appreciation of the part played by chemical compounds—so-called hormones—over the physiologic process of the body.

In the case of the respiration, for example, the carbon-dioxid content of the circulating blood normally tends to regulate the number and character of the breathing movements. This is an example where a waste product of the body acts as a hormone or chemical regulator in contradistinction to the control constantly exerted over these movements by the nervous system. The mucous membrane of the pyloric end of the stomach is said to secrete a hormone or internal secretion which when absorbed stimulates peristalsis. Epinephrin, the secretion of the suprarenal glands, is another hormone in the form of an internal secretion. Its duty apparently is about the same as the sympathetic nervous system as an inhibitor and as a stimulant to the tonicity of the musculature and secretions of the different organs. Elliott on "The Control of the Suprarenal Glands by the Splanchnic Nerves" showed by experiment that the residual epinephrin in the adrenals was rapidly decreased by such causes as, fright, anesthesia, brain injury, etc., and believes it probable that the suprarenal glands are controlled and played on by the splanchnic nerves in the emotional and vasomotor reflexes with almost as delicate and ever-changing adjustment as are the peripheral muscles connected with the sympathetic nerves. A vast field for theory and experiment is opened up in the interesting study of the internal secretions. Among such interesting studies during the year 1912 are the following:

Falta, Eppinger and Rudinger,² who have devoted special attention to the study of the interrelationship of the action of the internal secretions of the ductless glands, believe that the removal of a gland with an internal secretion works in two ways: first, by the direct result of the absence of its secretion, and secondly, by the indirect effect due to the disturbance of metabolism consequent on its relations to other glands. They hold that ductless glands may be divided into two groups according to the disturbances of the metabolic functions of the body to which alterations in their secretory activities may give rise. They divide them into (1) an accelerator group and (2) an inhibitory group. To the accelerator group belong the thyroid, the adrenals and the hypophysis, since it has been shown that a study of the reactions of the body to injections of preparations from these organs and observations on the result of experimental interference with their functions suggest that all three increase protein exchange; the adrenals cause mobilization of carbohydrates, and the thyroid

2. Ueber die Wechselwirkungen der Drüsen mit innerer Sekretion, *Ztschr. f. klin. Med.*, 1912, lxxvi, 1.

causes increased fat destruction. To the inhibitory group belong the pancreas and parathyroids, because it has been shown that both retard protein destruction, the pancreas being the more active; further, both restrain the mobilization of carbohydrates, the pancreas again being the more active of the two. The pancreas also causes a decrease in fat consumption. These investigators have correlated their results and have come to the following conclusions:

1. The internal secretions of the thyroid and pancreas mutually retard each other's activities.
2. The internal secretions of the pancreas and chromaffin system mutually retard each other's action.
3. The internal secretions of the thyroid and chromaffin system mutually increase or accelerate each other's action.

In explanation it may be said that the chromaffin system has reference to those groups of cells which have a particular affinity for the salts of chromic acid. These cells are found chiefly in four situations: (1) they occur in the adrenals, where the largest collection of such cells occurs; (2) they accompany the nerves of the sympathetic system; (3) they occur in abundance in the retroperitoneum; (4) they are grouped together in the pelvis to form the so-called Zuckerkandl organ. For all practical purposes, the word "adrenals" may be substituted for "chromaffin system" in the above classification of the accelerator and inhibitory activities of the internal secretions of the ductless glands.

Gudernatsch³ reports his experiments regarding the relation of the thyroid and thymus glands to development. The effect of abnormalities of the ductless glands is known and is well illustrated by the condition known as cretinism. Gudernatsch found that when he fed thyroid to young tadpoles there was a speedy metamorphosis into adult frogs, resulting in dwarf frogs. On the other hand by feeding thymus substance he succeeded in delaying maturity to a marked extent.

Pratt⁴ tells of inducing atrophy of the pancreas in a puppy 6 months old. He had the puppy under observation 3 years and found that the sexual functions did not develop. She never menstruated and the external genitalia and nipples did not develop. He believes that this "sexual infantilism" associated with hyposecretion of the pancreas is another item of proof that the pancreas has an internal secretion.

Knowlton and Starling,⁵ in experiments on the relative consumption of sugar of the normal and diabetic heart muscle have shown by seemingly accurate and reliable experiments that the pancreas normally produces a substance which is continually discharged into the circulating blood—a pancreatic hormone—the function of which is to promote and control the assimilation by the tissues of the sugar in the circulating blood.

Pemberton and Sweet,⁶ in experimental notes on influence of the adrenals over the pancreas, show that following removal of adrenals, the flow of pancreatic juice is greatest and that injections of epinephrin inhibit this flow. As the after-effects of the injection wears off the flow tends to return. They believe therefore that the adrenals control to some extent the flow of pancreatic juice.

A valuable contribution to the subject of internal secretion is that of Burnam,⁷ who gives his experiences with the use of corpus luteum extract in gynecologic work. He concludes that it is not toxic even in large doses and furnishes a valuable means of controlling the nervous symptoms common to the menopause. Its properties also tend to induce menstruation in functional amenorrhea and to regulate a tendency toward amenorrhea. He believes from his work that Frankel is correct in attributing menstruation to an internal secretion of the corpus luteum, and that it possesses different properties due to different chemicals, so-called hormones, which it contains. One of these causes hyperemia of the pelvic organs, while another relieves the toxic nervous symptoms of the menopause.

THE NEWER TESTS FOR CANCER OF THE STOMACH

Smithies,⁸ on the diagnostic worth of glycyl-tryptophan and tryptophan tests in diseases of the stomach, examined 1,175 cases. In this series only one-third of the known cases of cancer of the stomach were positive to glycyltryptophan and about one-thirteenth were positive to the tryptophan test. His work does not show that the reaction is pathognomonic for cancer, since it is sometimes found in gastric conditions other than cancer.

Sanford and Rosenbloom⁹ gave the result of their extensive investigations on the glycyltryptophan and tryptophan tests for cancer of the stomach which showed that the test was not reliable, 82 per cent. of cases showing cancer by operation or post-mortem showing negative tests.

5. Jour. Physiol., 1912, xlv, 206.

6. Arch. Int. Med., September, 1912.

7. Jour. Am. Med. Assn., Aug. 31, 1912.

8. Arch. Int. Med., October, 1912.

9. Arch. Int. Med., April, 1912.

3. Fütterungsversuche an amphibien larven, Zentralbl. f. Physiol., 1912, xxvi, 323.

4. Jour. Am. Med. Assn., Aug. 31, 1912.

We must, therefore, rely on the old laboratory tests in diagnosing cancer of the stomach.

Hornberger,¹⁰ after a comparative study of the ferments of normal and cancer tissue, found that the cancer ferments, on which the glycytryptophan and like biologic tests are based, belong to the group of ereptases and are not in any way different from the ereptases found in any other normal body tissue or fluid. Compared quantitatively cancer tissue contains less ereptase than normal kidney, liver or spleen.

THE ETIOLOGY OF CANCER

The etiology of cancer occupies the interest of many investigators and with our knowledge of the existence of ultramicroscopic organisms it would be quite natural for some to make studies along this line.

Peyton Rous of New York¹¹ has shown conclusively that sarcomatous tumors of the hen can be transmitted by injection of tumor emulsion fluid which has been filtered free of cells by filter paper. While this does not warrant the conclusion that cancer is of an infectious nature, it will undoubtedly stimulate investigation in this direction.

Another very interesting study along this line is that of Vaughan,¹² who reports his experiments on the blood-changes brought about by hypodermic administration of cancer proteids. He states his belief that just as the polymorphonuclear leukocytes protect the body against outside infection, so the large mononuclear leukocytes protect the body against broken-down body tissue-cells and against autogenous growths or cancer cells. In his cases of malignant disease injections of vaccine made of cancer cells always caused a rise in the count of large mononuclears from 20 to 30 per cent. In some cases this treatment produced apparent cure.

NEW BIOLOGIC TEST FOR PREGNANCY

Abderhalden¹³ reports a simplification of his specific biologic test for the existence of pregnancy in an individual by examination of the proteolytic power of the blood. This test (*Journal of the American Medical Association*, May 25, 1912) depends on the so-called "immunity reactions" of the living organism. Marvelous illustrations of these reactions are such phenomena as the development of a precipitin reaction when foreign serum is introduced into the body, the remarkably specific character of the various mani-

festations of anaphylaxis in animals and man, the development of agglutinating or hemolytic powers when foreign products enter the circulation, etc. When a foreign protein finds its way into the circulation a biologic change ensues whereby enzymes ordinarily not present are formed as a protective response on the part of the organisms to destroy the foreign protein. These enzymes are looked on as protective ferments. This phenomenon of reaction to the presence of foreign substances in the blood-stream is not limited solely to compounds introduced from without. The formation of foreign substances within the organism by biological or metabolic process may stimulate just as marked a response as does the foreign substance. The tissues and structures of the embryo having an independent circulation are in a sense foreign to the body and the escape of placental products into the circulation of the mother apparently provokes the formation of protective enzymes capable of digesting placental protein. On this theory Abderhalden proposes the following test which so far appears reliable. Specially prepared and easily preserved placental tissue is digested in small quantities of 2 or 3 c.c. of the fresh blood-serum of the individual female to be tested. The reaction is conducted in a small dialyzing tube which is suspended in a jar containing 20 c.c. of distilled water. If the protective enzyme has developed within her body it will be present in the serum and, when this mixture is incubated for about sixteen hours, will digest placental protein (but not other foreign proteins) and the products of proteolysis will diffuse through the dialyzer so that they can be identified by testing the dialysate for the products of proteolysis. This test, if proven entirely reliable, is bound to be a valuable addition and its simplicity as compared to some of the other blood-tests of immunochemistry commends it.

He has found¹⁴ that his test for pregnancy can be done by dialysis or by use of the polariscope. When the blood-serum is mixed with peptone derived from the placenta, the rotation of the plane of light determines whether the blood-serum is from a pregnant or non-pregnant woman. In an experience of 300 cases he has not once had a failure of the test. Color reactions for products of proteolysis are the end results in the method by dialysis.

BIOLOGIC TEST FOR MENINGITIS

Braun and Hinsler¹⁵ have devised a biologic test of the spinal fluid on the basis of Weil and

10. Jour. Am. Med. Assn., Sept. 14, 1912.

11. Jour. Am. Med. Assn., Aug. 10, 1912.

12. Jour. Am. Med. Assn., Nov. 15, 1912.

13. Weltener befrag zurbiologischen Feststellung der Schwangerschaft, Ztschr. f. physiol. Chem., 1912, lxxxI, 90.

14. Deutsch. med. Wehnschr., Nov. 14, 1912.

15. Deutsch. med. Wehnschr., 1912, xlviii, 1179.

Kafkas' experiments which showed that whereas both amboceptor and complement are increased in this fluid in meningitis the amboceptor only is increased in general paralysis. To 1 c.c. spinal fluid is added 1 c.c. at a time a solution of 3/100 normal hydrochloric acid. If after 5 c.c. have been added no precipitate occurs the test is negative. The test is for globulin, the precipitation of which includes complement and is on the principle that since an increase of complement is indicative of meningitis, therefore an increase in globulin means an increase in complement.

ACETONURIA

Chalfant,¹⁶ on the relation of acetoneuria to postoperative vomiting in 700 cases of ether anesthesia found that the liability to vomiting was increased whenever acetone was in the urine and that when it was present the patient needed careful watching and treatment by sodium bicarbonate and lavage to prevent marked symptoms of acid intoxication.

In this connection attention is called to an article on acetone and its relation to acid intoxication by the writer (Rhamy) appearing in the *Journal of the American Medical Association*, March 2, 1912. After a study embracing a long series of urinalyses in all kinds of cases, the conclusion was reached that for practical clinical purposes routine examinations of urine should be made for acetone in all cases of toxemia. In toxemia of pregnancy especially it was found in every case of true toxemia, and therefore is the best and most reliable danger signal of oncoming or existing toxemia in pregnancy. In an attempt to learn more of the properties of acetone it was injected in regulated doses into guinea-pigs under varying conditions. It was found possible to reproduce the varying symptoms of acid intoxication including convulsions, coma, nausea, etc. As the result of these experiments the writer believes that acetone as a toxic agent plays a far greater rôle in toxemia than we are at present led to believe.

THE FUNCTION OF THE SPLEEN

The spleen has long been considered a blood-making organ especially of the red cells, but hitherto experimental evidence has failed to show just what connection if any it has to the blood, nor has it been shown that it has any other purpose in the human economy. Spleens have been removed without apparent disturbance of metabolism and about the only thing really known about it is that it contains a high percentage of iron.

Now come Asher and Vogel¹⁷ with a demonstration that the spleen is the laboratory where iron is metabolized.

THE FUNCTION OF BLOOD-PLATELETS

Bayne Jones¹⁸ reports that he has found that the blood-platelets contain a substance (prothrombin) which after activation with calcium salts, clots fibrinogen. He concludes that the disintegration and solution of blood-platelets when blood is shed are essential or helpful in the process of coagulation. In view of the observations that blood-platelets are diminished in blood whose coagulability is diminished, and that they clump together and form nuclei around which clots form, it may be that his observation explains the hitherto unknown function of the blood-platelets.

BENZOL A DESTROYER OF BLOOD-CELLS

Karanyi¹⁹ tells of applying Barker's discovery, that benzol (anthracic benzene) has a destructive action on the blood, to a case of leukemia and one of polycythemia. In the leukemia case 3 or 4 grams per day of benzol reduced the white cells from 220,000 to 8,000 in three months with return of the spleen to normal size and marked improvement in general health.

THE ETIOLOGY OF BERIBERI

The study of the tropical disease known as beriberi has brought out the interesting discovery that it is not an infectious disease but is due to the eating of "polished rice." By experiments it has been shown conclusively that the cortical layer of the grain contains something essential for nutritive equilibrium. According to Chamberlain, Bloombergh and Kilbourne,²⁰ the difference between the harmless unmilled rice and the harmful polished rice is in the low phosphorus and potassium content of the latter. The use of these chemicals, however, failed to cure or prevent the disease, making necessary further investigations. Funk²¹ says: "The substance which is absent in polished rice and is contained in rice polishings is an organic base present only in minute amounts, not more than .1 per kilo of rice. This base is completely precipitated by phosphotungstic acid, by silver nitrate and baryta. The curative dose is small. He cured pigeons by a minute quantity of the substance, the dose containing only 4 milligrams of nitrogen." It remains for further investigations to prove these claims.

17. Beiträge Zur. Physiol. der Drüsen, Biochem. Ztschr., 1912, xiv, 386.

18. Am. Jour. Physiol., 1912, xxx, 74.

19. Berl. klin. Wchnschr., July 15, 1912.

20. Rice Diet, Philippine Jour. Sc., 1911, vi, 179.

21. Jour. Physiol., 1911, xliii, 395.

16. Jour. Am. Med. Assn., Sept. 14, 1912.

A BIOLOGIC TEST FOR MENINGITIS

The introduction by Vincent, Colligan and Pilod of a "precipitin reaction" for the purpose of differentiating between meningococcus meningitis and that caused by the ordinary pathogenic organisms may prove to be a valuable addition to laboratory diagnosis in view of the importance of making such a differentiation on account of the serum treatment of the epidemic form. The test is as follows: "Add one or two drops of an antimeningococcus serum to a tube of fresh cerebrospinal fluid from the suspected patient, which has been cleared by rapid centrifugation for ten or fifteen minutes. This tube together with a control tube are incubated for a few hours at 52 C. (125.6 F.). If the patient has a meningococcus infection a definite precipitate will occur in the tube.

ADVANCES IN THE STUDY OF POLIOMYELITIS

Flexner, Clark and Dochez²² note that the virus of poliomyelitis occurs in the nasal and buccal mucus in human cases and is inevitably swallowed in the saliva. The virus survives the digestive juices and is discharged in the feces which are, therefore, a potential source of infection.

Flexner²³ says that epidemic poliomyelitis like epidemic meningitis appears in a frank and in an abortive or ambulatory form, and appears to be transmitted by a virus that enters and escapes from the body in the region of the mucous membrane of the nose and throat, can be transported by active infected carriers, and probably by healthy passive carriers of the specific micro-organism or virus. Fortunately, however, the disease is naturally limited in its spread by the high natural insusceptibility of the human race. While it cannot be said that the disease dies out during the winter months, its period of greatest prevalence is the autumn months.

Roscnau²⁴ reported that he has succeeded in transmitting poliomyelitis from monkey to monkey through the agency of the biting stable fly (*Stomoxys calcitrans*). An observation that was confirmed by Anderson and Frost,²⁵ who transmitted the disease from monkey to monkey by means of the bite of the stable fly and then transmitted the infection to a third monkey by using an emulsion of the spinal cord of the animals infected by the flies. Seven days was found to be the shortest incubation period between fly bite and development of the disease.

EPIDEMIC SORE THROAT

Epidemic sore throat has occupied the interest of the medical profession during the last year and epidemics at Boston, Christiana and Chicago subjected to close scrutiny. The symptoms are described thus: Begins suddenly with or without chills followed by fever, muscular pain, headache, sometimes nausea and vomiting, prostration and the usual symptoms of follicular and membranous tonsillitis and pharyngitis except that the pulse is slow. The lymph-nodes in the neck become tender, swollen and may suppurate. The attack only lasts a few days and subsides abruptly, leaving the patient more or less prostrated and susceptible to recurrent attacks. Deep-seated abscesses of neck, otitis, erysipelas and scarlatiniform eruptions, acute articular rheumatism, endocarditis and other pathologic phenomena caused by streptococcal invasion have been found as manifestations in this disease. All of the cultures taken from the throats thus affected show a form of streptococcus supposed to come from milk.

Capps, Miller and Davis²⁶ and Heinemann,²⁷ who investigated the Chicago epidemic in which over 10,000 persons were afflicted, found that 87 per cent. of those affected were users of milk from a certain dairy and traced the infection back to mastitis in some of the cows and sore throat in some of the milkers. Davis isolated a virulent streptococcus from these cases.

Luetscher²⁸ studied the bacteriology of epidemic sore throat following the classification of streptococci by Andrews and Harder: 1. The usual *Streptococcus pyogenes* group which does not clot milk or ferment raffinose. 2. The *Streptococcus angiosus* group which usually clots milk and often ferments raffinose.

The *Streptococcus pyogenes* group is usually associated with suppurations, erysipelas and septicemias.

The *Streptococcus angiosus* group is especially associated with inflamed throats, scarlatinal and otherwise. It is also found in malignant endocarditis, peritonitis and otitis. This group also corresponds to the *Streptococcus scarlatinae* of Klien and the *Streptococcus conglomeratus* of Kurth.

The *Streptococcus salivarius* and the *Streptococcus fecalis* groups are relatively avirulent, short-chained varieties obtained from the saliva and the feces, respectively. These do not cause a hemolytic zone on blood-agar and are often associated with chronic endocarditis.

22. Jour. Am. Med. Assn., July 27, 1912.

23. Jour. Am. Med. Assn., Oct. 12, 1912.

24. Jour. Am. Med. Assn., Oct. 12, 1912.

25. Pub. Health Rep., Oct. 25, 1912.

26. Jour. Am. Med. Assn., June 15, 1912.

27. Jour. Am. Med. Assn., Aug. 31, 1912.

28. Jour. Am. Med. Assn., Sept. 14, 1912.

He concludes that the streptococcus of epidemic sore throat belongs to the *Streptococcus angiosus* group.

In parentheses it may be said there is a class of observers that believe that all streptococci are variations of one strain only.

YEAST AND FUNGUS INFECTIONS

Attention has been directed in recent years to infections of the human race by pathogenic yeasts and fungi. These organisms have a close relationship to bacteria but have always been considered non-pathogenic and are used for industrial purposes such as bread and cheese making, for fermentation of wines, beers and other useful purposes. We have within the last decade discovered that these organisms may on occasion become pathogenic just as the colon bacillus at times becomes virulent. It has been long known that these organisms were the cause of certain skin diseases, i. e., favus (the various forms of tinea), erythrasma, mycetoma, blastomycetic dermatitis, etc. The clinical picture of deep-seated or systemic infections is now becoming more common since they are being recognized and we now have as entities such conditions as blastomycosis, oidiomycosis, saccharomycosis and sporotrichosis. These infections pursue a chronic course and manifest themselves as ulcerations, subcutaneous abscesses or tubercles. Any part of the body may be affected and it is recognized that a fatal infection of the blood may occur without external manifestations. Breed²⁹ calls attention to the possible significance of yeast or fungi in the sputa of doubtful lung cases and reports sixteen cases of yeast infection of the lung. Pathologists accustomed to routine examination of many sputa will remember how frequently these organisms are observed and this report will undoubtedly open an interesting field of investigation of all varieties of lung affections. In this connection Hoxie and Lamar³⁰ report two cases of tracheo-bronchitis in which careful sputum examination showed only a branching fungus as a causative organism. They believe this condition is more frequent than is now realized.

ETIOLOGY OF TRACHOMA

Under the supervision of Dr. Park in the research laboratories of the New York Health Department a systematic study of a large number of cases of trachoma resulted in finding a tiny gram-negative, strictly hemoglobinophilic bacillus in a large percentage of cases, although they have been unable so far to differentiate it from the

Bacillus influenza. Colonies of this organism stained by Giemsa's methods show characteristics similar to that of the "initial trachoma bodies" as described by Lindener.

VACCINE THERAPY

The principles of vaccine therapy have this year become more deeply rooted than ever and biologic chemistry is the basis on which many problems in medicine are being studied. Notwithstanding the earlier opinion that vaccines were not indicated in acute infections, they, together with serum therapy, are being applied more and more to such infections and especially streptococcic infections. Although the number of cases so far reported is not large, the encouraging reports are such as to make it advisable to adopt immunotherapy in practically all such infections. Western³¹ reports reducing his mortality, of from 85 to 95 per cent., of which 80 per cent. were streptococcic infections, in puerperal septicemias, to 55 per cent. by the use of autogenous vaccines.

The writer can cite a case of streptococcus infection of the middle ear with meningeal involvement, also several cases of puerperal sepsis cured by autogenous vaccine. In these cases the form of vaccine used was the so-called "pus emulsion." The idea of using sterilized emulsions of pus was originated by the writer (Rhamy) and combines Wright's vaccine therapy with Hiss's sterile leukocyte emulsions. This autogenous "pus emulsion," which can, by the way, be made from any autogenous germ-infected body fluid, contains the bacteria, leukocytes, toxins, ferments, etc., and since its introduction has given better results to those who have used it than the bacterin alone. As an illustration of its activity; in one case of tubercular kidney infection a pus emulsion was made of a strength that 1 c.c. contained 1 million leukocytes. One minim of this emulsion would produce a tuberculin reaction.

Russel³² gives the results of antityphoid vaccination in the U. S. Army in 1911. At San Antonio, Texas, an army of 12,800 men encamped from March 10 to July 10, 1911. They had one case of typhoid fever and no deaths, after vaccination; as compared with an army of 10,800 men at Jacksonville, Fla., from June 1 to October, 1898, not vaccinated, who had 2,693 cases of typhoid and 218 deaths. The conclusions following administration of over 40,000 doses are: Antityphoid vaccination in healthy persons is a harmless procedure and confers absolute im-

29. Arch. Int. Med., August, 1912.

30. Jour. Am. Med. Assn., Jan. 13, 1912.

31. Lancet, London, Feb. 10, 1912.

32. Jour. Am. Med. Assn., May 4, 1912.

munity against infection lasting about two and one-half years.

Lorenz and Ravenel³³ applied the principle of weeding out one infection with another by "over-riding" the throats of chronic diphtheria carriers with suspensions of *Staphylococcus aureus* as recommended by Schiotz in 1909. They report five cases so treated and conclude that pure cultures of *Staphylococcus pyogenes aureus* sprayed into the throat and nasal cavity will cause a disappearance of the diphtheria bacilli from the air passages in chronic diphtheria carriers.

THE ALBUMIN TEST FOR TUBERCULAR SPUTUM

Regarding the examination of sputum for albumin in pulmonary tuberculosis, Sahli, Rogers, Row and others, after testing over 1,000 cases agree: 1. That albumin is usually present in the sputum of pulmonary tuberculosis. 2. That in doubtful cases the presence of albumin in the sputum coupled with a positive von Pirquet reaction would warrant a diagnosis of tuberculosis. 3. Albumin occurs also in the sputum of certain other pulmonary affections, namely: pneumonia, edema, pleurisy with effusion, acute bronchitis and emphysema. The technic of the test is as follows: To 20 c.c. sputum slowly add 3 per cent. acetic-acid solution with agitation until mucin is coagulated. Then add distilled water up to 60 c.c. and shake thoroughly. Filter first through several layers of gauze, add a few more drops of acetic-acid solution and filter through filter paper. Test then for albumin with any reliable test and if present a quantitative estimation may be made.

CULTIVATION OF THE SPIROCHAETA PALLIDA

Noguchi,³⁴ in differentiating the *Spirochaeta pallida* in culture announces the following standards: (1) correct morphology, (2) necessity of the presence of fresh sterile tissue in the culture medium, (3) strict anaërobiosis, (4) non-production of odor in culture, (5) capability of inciting an allergic reaction in certain cases of syphilis (so-called luetin reaction), (6) pathogenicity. He says that in some cultures grown under unfavorable conditions the organisms had the form of highly refracting granules.

THE LUETIN TEST FOR SYPHILIS

Regarding the luetin test the following facts have been established by Noguchi: The luetin reaction is specific for syphilis and will respond in the majority of cases of tertiary, latent and hereditary syphilis. Primary and secondary syphilis, general paralysis and tabes ordinarily do not respond to this test.

WASSERMANN TEST FOR SYPHILIS

The Wassermann test for syphilis has become firmly established as of the utmost value both as to diagnosis and cure of syphilis. Among the points brought out within the last year regarding this test is that it is not a specific antigen-antibody combination as was at first thought. We now know that the antigen is not a spirochetal extract, but is composed of lipid substances, which, although present in small amount in most tissues, is greatly increased in syphilis. Fortunately this discovery that the antigen is not spirochetal extract does not vitiate the reliability of the test for clinical purposes, since positive reactions are only obtained when the serum to be tested comes from syphilitic individuals, or from certain well-known disease, namely, narcosis, scarlet fever, pneumonia, leprosy and some parasitic diseases, whose clinical picture would not be confounded with syphilis.

Dexter and Cummer³⁵ made the following interesting observation of the percentage of positive Wassermann tests at different stages of primary syphilis: During the first week, 50 per cent. positive; during the second week, 65.5 per cent. positive; during the third week, 81.5 per cent. positive; during the fourth week, 87.5 per cent. positive; during the fifth to eighth week, 100 per cent. positive.

This gradual increase in reliability of the test is of course due to the fact that the infection is at first local and gradually spreads to a general systemic infection.

From our knowledge of the reactions for syphilis, the following conclusions may be considered proper:

1. With the bacteriologic and serum tests for syphilis, the diagnosis and estimate of cure has been changed from guesswork to relative certainty.

2. The microscopic examination for *Spirochaeta pallida* is the best method for diagnosing primary sores.

3. The Wassermann test is by far the best and most reliable method for estimating cure and for diagnosis of hereditary, secondary and late syphilis.

4. The luetin test may prove to be the best test for tertiary and late hereditary syphilis.

5. Every sore, no matter where located, that in any way suggests lues should be subjected to thorough examination before concluding that it is not specific.

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33. Jour. Am. Med. Assn., Aug. 31, 1912.

34. Jour. Am. Med. Assn., Oct. 5, 1912.

35. Jour. Am. Med. Assn., Oct. 5, 1912.

THE YEAR'S PROGRESS IN OTO-LARYNGOLOGY

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No great discovery, revolutionizing operation or plan of treatment, has been brought out in the year just past. Nineteen twelve may well be characterized as a year in which substantial progress in otolaryngology has been made, but with little new or startling to attract the attention of outside specialties, as in some former years. Laryngology and otology being among the older specialties many problems that were formerly much discussed are now so well settled that standard methods of procedure may be found in any modern text-book. The diagnosis of diseases of the labyrinth, bronchoscopy, the surgical management of meningitis and salvarsan administration have continued to receive much attention. Questions dealing with the surgery of the tonsil are still in debate, and strangely, are still far from settled. Many papers have appeared, and increased interest was taken in surgical subjects pertaining to the head and neck which were formerly considered outside the field of the otolaryngologist. Indications are not wanting that at least a few of those who practice this specialty must and should include in their work the surgery of the head and neck. The otolaryngologist should be best equipped to deal with the intricate physiologic and anatomic problems often presented as complications in the practice of this specialty. Hence during the past year acute interest has been taken in the surgery of the thyroid gland, laryngectomy, brain surgery, etc., and in the future we predict that much of the otolaryngologic literature will be made up of such closely allied surgical subjects.

In August, 1912, the International Otological Congress was held in Boston, with an attendance of about 300 American otologists and about thirty guests from European countries. While the papers and discussions were chiefly on well-worn topics much new light was shed on old methods and the meeting was regarded as successful from that standpoint. The interest shown by the congress in the teaching of the deaf was notable. The demonstration by Helen Keller, who spoke to the congress plainly in three languages, showed what may be done by such teaching. The next most notable feature of the congress was, we believe, the part taken by Mr. Heath of London, author of the Heath operation. Mr. Heath's papers received close attention, but were discredited by nearly every British otologist present,

and by most Americans, the general opinion expressed being that Mr. Heath very greatly overestimates the importance and curative value of his operation, and that his reports concerning the same are vastly exaggerated. It has been a difficult task to condense in short form, the vast literature of 1912. Many good points in hundreds of worthy articles are necessarily omitted, and only a few practical working opinions are here included.

ANESTHESIA

Since otolaryngologists employ general anesthesia frequently at present, the subject becomes one of great importance to this class of surgeons. Several notable papers have appeared chief among which are those of a symposium in the Sections of Pharmacology and Physiology the American Medical Association, 1912. Since these papers were by professional anesthetists of wide experience their views should have much weight.

Gwathmey gives statistics concerning the relative safety in the administration of ether, chloroform, etc. Quoting Hewitt and other English surgeons who have collected statistics on the subject in Great Britain, the mortality in one million administrations shows a death-rate from ether of one in 16,302 cases and in chloroform of one in 3,162 cases. Accordingly ether is more than five times safer than chloroform. It is pointed out that the use of chloroform is safer in a warm climate than a cold one; in summer than winter.

Gwathmey collected American statistics of results in 278,945 cases with a mortality for ether of one in 5,623. Following nitrous oxid-ether sequence there was one death in every 6,905 administrations. After the administration of chloroform there was one death in every 2,048 cases. Of 14,878 recorded cases of local anesthesia there was no death. Of 8,585 anesthetics by nitrous oxid with oxygen there was no death, while with nitrous oxid alone there were two deaths in 1,314 administrations. In 516 cases of rectal anesthesia there was one death.

It will be seen that American results from the use of anesthetics do not compare favorably with those of Great Britain. Gwathmey points out as a reason the fact that in the latter country nearly all hospitals are provided with professional anesthetists while in America such is by no means the case.

Miller of Providence, R. I., arranges anesthetics according to safety as follows: (1) nitrous oxid; (2) ether; (3) ethyl chlorid; (4) chloroform. Miller states that intrinsically no anesthetic is safe, the relative safety depending much on the care with which it is administered.

Pinneo observes that the great needs in anesthesia are its production by means that are safe, surgical, yet not more profound than immediately necessary. Such anesthesia, he adds, is difficult, particularly in operations about the face and throat where anesthetist and surgeon both need the same field.

A point of special interest to the laryngologist is stated by the committee on anesthesia.¹ Arrested breathing comes particularly to those who administer so irregularly that the patient at times comes nearly out of anesthesia and again is plunged into profound narcosis. Anesthesia is good in proportion as it is uniform. Offenses against this principle occur most frequently in adenoid and tonsil operations. When death of the child occurs it is assigned either to heart disease or status lymphaticus. The committee states that such deaths are more likely the natural result of intermittent anesthesia.

ANATOMIC

Loeb² exhibits a splendid series of casts of the sphenoidal sinus, showing the same individually and in natural relation in the sectioned skull. Two important deductions may be made from Loeb's work. First the mucous lining of ten heads measured for each separate sinus an average of 16.95 square centimeters for the right side and 16.26 square centimeters for the left side. Second, the cubical capacity for the twenty cavities examined was, on the average 5.145 c.cm. The smallest sinus would hold 0.6 c.cm. while the largest had a capacity of 11.8 c.cm.

Fetteroff,³ among other facts of the anatomy of the tonsil, points out the very practical one that the plica triangularis is a continuation of the fibrous capsule of the tonsil to a greater or less degree on the pharyngeal surface of the gland. Therefore in removing the diseased tonsil the plica should not be cut through, for, should this be done the operator would be working inside the capsule in the effort to enucleate, whereas he desires to include the capsule in the removal. Many failures to completely remove the gland are attributed to a lack of anatomical knowledge regarding the plica.

THE LARYNX TREATMENT

Fetteroff⁴ advocates the injection of alcohol into the internal laryngeal nerve for the relief of pain in laryngeal tuberculosis. Sixteen of his own cases are reported and nine are quoted from recent literature with favorable results. The

rationale and technic are the same as that advocated for the injection of alcohol in facial neuralgia; 1.3 to 1.6 c.c. are injected as nearly as possible to the site of entrance of the nerve through the thyrohyoid membrane. No harm of consequence is reported from the injection of any case. The relief from pain and the consequent ability to take food at once was most gratifying in a majority of the injected cases. Horn⁵ reports ten cases of far-advanced laryngeal tuberculosis treated by injection of alcohol, with a result most gratifying to the patients who were all relieved of their suffering when no error in the technic of injecting the alcohol was made. It is pointed out by these observers that, in case the epiglottis is the seat of ulceration and pain the injection of the internal laryngeal nerve gives no relief for the reason that the epiglottis is supplied by another nerve, the glossopharyngeus.

Lockhard⁶ advocates amputation of the epiglottis when it is the seat of pain in these cases, recommends the operation in the early stage of the disease, and reports satisfactory results.

BRONCHOSCOPY

Jackson⁷ discusses the possibility and desirability of bronchoscopic examination of the larynx, trachea and larger bronchi in cases of acute catarrhal inflammation difficult of diagnosis by old methods. He relates instances in his own practice of accurate diagnosis, relief and cure by this method when all was uncertainty by other means.

Jackson⁸ also discussed some of the difficulties of tube examination and foreign body extraction. The leaders in tube work, several of whom were present, including Mayer, Johnson, Large, Murphy and others, all agreed that much practice and a large armamentarium are necessary to do successful work in all cases, and that therefore those who attempt it should acquire as perfect technic as possible, and should secure the service of one or more assistants who can be relied on to help in all cases, and who may thus learn every step of the progress of the bronchoscopist.

THE EAR

Bacher⁹ gives the result of a study of the applied anatomy of the Eustachian tube in fifteen half heads. The most useful point brought out in this study is that a curet, in order to adjust itself to the natural curvature of the tube, should have a curvature which, when completed, would be a circle 2 cm. in diameter. This is less than

1. Jour. Am. Med. Assn., June 15, 1912.

2. Ann. Otol., Rhinol. and Laryngol., March, 1912.

3. Am. Jour. Med. Sc., July, 1912.

4. Ann. Otol., Rhinol. and Laryngol., March, 1912.

5. Jour. Am. Med. Assn., Sept. 7, 1912.

6. Candidates' Thesis, Am. Laryngol. Assn.

7. Editorial, Laryngoscope, February, 1912.

8. Session Acad. Ophth. and Oto-Laryngol., 1912.

9. Laryngoscope, January, 1912.

the curvature of Yankauer's curets, which have a curvature of 2.5 cm. The average length of the ten adult Eustachian tubes was 37.8 mm. Yankauer,¹⁰ defending the larger curve of his Eustachian curets, states that the same are correct for use on the living subject, and that whereas a lesser curve represents the tube in the cadaver it does not do so in actual practice.

Mosher¹¹ illustrates and describes a mastoid transilluminator, and states that he has used the same with great satisfaction in 125 cases. The chief value of the instrument, which is a fenestrated ear speculum with an electric-light attachment, is its use as a diagnostic help in mastoiditis, acute or chronic. Mosher states that much the same information may be obtained by the use of this simple device as from x-ray plates, and at a mere fraction of expense as compared with the latter.

The most elaborate American discussion of a subject closely allied to otology was by Kopetzky, on "Meningitis, Nature, Cause, Diagnosis and Principles of Relief,"¹² and "The Surgical Treatment of Meningitis," by Irving S. Haynes, given before the same society by invitation. While these papers are very exhaustive, the chief points are the following: Suspected meningitis, of all types, may be diagnosed early by means of taking blood-pressure at short intervals, which will show, if meningitis is approaching, a progressive increase. The eye-grounds show increased tension of the veins, with swelling of the papillae. Examination of the spinal fluid shows by the rate of flow increased pressure; physical changes as cloudiness; chemical changes as hyperacidity, albumin, globulin, fats, absence of copper reducing body, etc. All these, taken in connection with the usual clinical symptoms enable an early diagnosis, which is absolutely necessary to surgical success. On the surgical side the practical deductions are: (1) Ten per cent. of the mildest cases die; 100 per cent. of the severe infections die. (2) Medicines are not indicated except as stimulants, etc. Sera have no place except in epidemic cerebrospinal meningitis. Surgery is the only possible hope in other forms of meningitis. The immediate cause of death is intracranial pressure. (3) The first surgical indication is release by drainage of the cerebrospinal fluid and relief of this pressure. (4) A method is advocated of opening and draining the cisterna magna, the operation being the quickest, safest and most certain of any yet brought forward.

TONSIL OPERATIONS

Mackenzie¹³ decries the indiscriminate removal of tonsils and, as his opinions represent a small minority view of the question, they are here liberally abstracted. "Never in the history of medicine has the lust for operation on the tonsils been as passionate as it is at the present time. It is a mania, a madness. It has infected not only the general profession but the laity." Continuing he expresses the following views:

The functions of the tonsil are unknown. They may protect the throat or they may, on the contrary, be the portals of entrance for infection. The tonsil is not a lymphatic gland, but is more nearly related to the thymus and thyroid glands. The rôle of the tonsils as portals of infection has been greatly exaggerated. Good and even better results are obtained, according to Mackenzie by partial removal of the tonsil than by complete enucleation. Even in quinsy slitting up and shrinking the upper lobe of the tonsil is the method advocated. Clipping the tonsils by means of the guillotine is the method of choice in operations on children. Complete enucleation is condemned, except in persons where the tonsil is totally diseased, is usually unnecessary and may be supplanted by many other methods which are perfectly safe and efficient and not open to the serious objections of tonsillectomy. It occasionally happens that the enucleation of a buried tonsil is followed by the burial of the patient. The amount of reckless surgery done on the tonsils will never be known. The results of such surgery are becoming daily a menace to the public good. The hope is expressed that the senseless slaughter of the tonsils be stopped.

Koplic,¹⁴ quoting many clinical and experimental authors on the subject, states that infections traceable to the tonsils may be closely connected with the appearances in quick sequence of rheumatism, endocarditis, pneumonia, nephritis, orchitis, appendicitis. Koplic further states that infection may follow immediately after tonsil and adenoid operations, and gives three forms: (1) The form which runs an obscure fever for a week or more without causing any endocarditic or other lesions. (2) Those cases which run a fever and combine the manifestation either of a mild, infectious endocarditis, or in which, as in the case of chorea, the case takes on a severe infectious type with a subsequent fatal issue. (3) A form of sepsis in which the infection is evidently severely hematogenous and causes destructive blood-changes, with profuse hemor-

10. Laryngoscope, May, 1912.

11. Laryngoscope, January, 1912.

12. Prize Essay, Am. Laryngol., Rhinol. and Otol. Soc., 1912.

13. Ann. Oto-Laryngol. and Rhinol., June, 1912.

14. Am. Jour. Med. Sc., July, 1912.

rhagic ecchymotic areas on the surface of the skin, hemorrhages from the bowel and areas of bronchopneumonia. These sequences are rare, but examples are given showing the possibilities of each.

The great majority of American laryngologists in their papers and discussions before the several national societies in 1912 on the value of complete tonsil removal, adhere to radical measures in this class of surgery. Most of these papers and discussions are as yet unpublished, but the writer was an interested participant and believes the following brief paragraphs are at present representative of the beliefs of our leading practitioners and clinicians: 1. The function of the healthy tonsil is probably one of protection in early life. Repeated bacteriological invasion of the tonsil may reverse this action so that later the gland is not only incapable of preventing infection but actually invites and favors infection. 2. Normal tonsils, or tonsils in which little evidence of disease exists should not be removed. 3. That tonsillectomy is superior to tonsillotomy is the opinion of our leading laryngologists today. 4. That surgical treatment rather than medical is to be chosen is the opinion of 90 per cent. of the laryngologists of the world (Richards). 5. That the operation of tonsillectomy is one requiring skill, technical training and trained assistance, is a hospital operation, and should not be undertaken haphazard. 6. That deformity of the throat may result, which in singers and public speakers may change or impair the voice.

STATUS LYMPHATICUS

Cocks¹⁵ discusses this disease on a basis of examination of forty-six autopsies on cases dying from this affection. Since many deaths during the administration of an anesthetic have been reported, especially in operations on the throat, his conclusions as to diagnosis of status lymphaticus are important. These are, general appearance of the patient (waxy complexion); x-ray examination; large amount of subcutaneous fat; general rotundity of the limbs; scant axillary and pubic hair (in adults); enlarged external lymphatic glands, and poorly developed genital organs. Surgeons, especially laryngologists, should be cautious in operations on cases with the above symptoms. In speaking of status lymphaticus the anesthesia commission of the American Medical Association states that many deaths reported due to this condition are, in reality, caused by improper administration of the anesthetic.

15. Candidates' Thesis, Am. Laryngol., Rhinol. and Otol. Soc.

THE YEAR'S PROGRESS IN OPHTHALMOLOGY

W. F. HUGHES, M.D.
INDIANAPOLIS

Definite progress has been made in ophthalmology in the consideration of the eye as a part of the human organism. Many valuable papers have been prepared emphasizing different phases of the fact that ocular diseases usually stand in some certain relation to abnormal processes in other organs or systems of the body. Intensified examination and study of eye lesions have given many valuable diagnostic symptoms of general diseases. Distinctive lesions are often found in the eye before available signs can be found in other parts of the body, for instance, the slight retinal edema, sclerotic retinal arteries, small spots of retinal exudate. That these lesions are often the first objective sign of progressive cardiovascular disease, and appear at a time when it is possible to prevent the further extension of the sclerotic process by improved conditions and the proper general medication, is being pushed by the oculists and accepted by students of general medicine.

Scrofulous or tuberculous tendencies are often indicated by characteristic morbid changes, when the real lesions are hidden or latent. Phlyctenular eye disease, formerly regarded by most oculists as a manifestation of tuberculosis, stands as a warning signal of some distinctive defect of metabolism, either in the form of a tuberculous tendency or simply of an auto-intoxication from a deranged gastro-intestinal digestion. In view of the fact that in phlyctenulosis it is often impossible to demonstrate the existence of an active or latent tubercular lesion, many investigators have been searching for an autotoxic cause. This class of patients usually gives a negative tuberculin test. While the absolute proof cannot be given, it can be shown frequently that the proper therapeutic measures directed toward the demonstrable gastro-intestinal toxemia bring speedy relief.

The fact that the iris and ciliary body are very susceptible to toxins of various kinds, such as those derived from corneal ulceration, oral sepsis, etc., has led to extensive investigations toward the extent to which auto-intoxication is an etiological factor in the diseases of these structures. Recently some researches have been made to determine whether true rheumatic or gouty iritis is possible of demonstration. The histories of 1,163 cases of acute rheumatism in Guy's Hospital (London) showed no complication of the iris or

ciliary body. The iritis which is associated with subacute and chronic rheumatism may be explained by a probable secondary infection or toxin. Many observers believe that a thorough investigation will show that many of the "rheumatic" cases are associated with a gonorrheal focus—probably of many years standing. No definite toxin has been isolated and proved to be an etiological factor in the ocular conditions mentioned; yet the scientific regulation of diet has repeatedly shown distinctly beneficial effects when the usual therapeutic measures have failed to produce the desired results. The continued presence of a clear positive reaction for indican in urinary examinations is generally accepted as sufficient proof of intestinal putrefaction when there is no evidence of an infective process. However, many careful investigators demand further proof. Effort is being made to explain many idiopathic cases of chorioiditis, keratitis and conjunctivitis, from the same cause.

Luetin devised by Noguchi gives promise of being a simple, practical and reliable test for syphilis. It is an emulsion or extract of the cultivated pure *Spirochaetae pallidae* which have been killed by heat and then carbolized with 0.5 per cent. phenol. The luetin emulsion under aseptic precautions is injected intradermatically in one arm with a control emulsion similarly injected in the other extremity. A positive reaction usually appears in from six to twenty-four hours, but may develop as late as eight days, in the form of a distinct papule with a bluish-red halo. Usually a central area of suppuration occurs after several days. The hypertrophy is quite persistent and may remain several months. In ophthalmological cases where it has been used the clinical evidence and Wassermann reaction as well as the therapeutic test have shown it to be almost constantly positive in hereditary and tertiary lues. With more active luetin it promises to be even more accurate than it is at present.

Considerable attention is still being given to the use of salvarsan. A majority of observers are convinced that the drug is not injurious to the healthy optic nerve and retina. However, experience seems to show that tertiary ocular symptoms are more apt to appear earlier than under ordinary treatment, unless accompanied and followed by the use of mercury. Whether the drug renders the delicate structures of the eye more susceptible to the original infection is a phase of the subject that is being investigated very carefully. The writer is inclined to believe that it is

probably true. Considerable difference of opinion still exists as to its value in inheritedluetetic ocular conditions, especially interstitial keratitis. Although praised by many observers, yet most oculists regard it slightly if at all more beneficial than the regulation mercurial treatment. In acute ocular syphilitic disease involving the anterior segment of the globe there is practically a unanimity of opinion that gratifying results usually follow its administration. The use of salvarsan in acute syphilitic lesions of the retina and optic nerve again divides the ophthalmologists into approximately two groups. Its advocates regard it as harmless, and claim that an urgent demand exists for its use; while many look on it as an heroic and dangerous remedy. The special danger lies in the effect of the endotoxin which is liberated on the death of the spirochetes on the highly inflamed delicate nervous structure involved. Many conservative oculists reserve the use of salvarsan for those syphilitic eye lesions which are rebellious to the use of mercury and iodids and severe infections of delicate and important structures when immediate relief is imperative. Within the past year a number of favorable reports have been given on the use of salvarsan in sympathetic ophthalmia. However, it does not seem to be uniformly helpful.

Clinical as well as animal experimentation seems to show that hexamethylenamin, internally, has a limited field of usefulness in the treatment of hypopyon keratitis, iritis, iridocyclitis, uveitis, etc. Experimentally, it has been shown that the amount of formaldehyde in the aqueous and vitreous cavities can be greatly increased by paracentesis of the anterior chamber, subconjunctival injections of normal salt, instillations of dionin solutions, and possibly the increased metabolism of an inflamed eye. It is reasonable to expect beneficial results from a course of medication with hexamethylenamin before operative procedures on the globe.

The value of serum and vaccine therapy in ocular diseases is still an unsettled problem. While some observers consider it a valuable curative agency, most oculists think it of limited value in selected cases when used with much care. Vaccine therapy deals with the production of active immunity, while serum therapy deals with the production of passive immunity. In eye lesions the dosage is usually regulated by direct inspection—a distinct reaction calls for a lessened quantity. The poor blood-supply to many structures of the eye tend to reduce the efficiency of this form of therapy. Vaccine treatment has

usually been successful in recurrent attacks of styes when the customary measures have failed to prevent their recurrence. The stock vaccines are not nearly as satisfactory as that prepared from the particular infection. Conjunctivitis, except the diphtheritic variety, has not been very successfully treated by the use of serum and vaccine therapy. Conservative ophthalmologists hesitate to take the risk of corneal infection while its resistance is lowered during the forty-eight hours of the negative phase. Extensive corneal ulceration has been treated with only a fair amount of success. The type due to the pneumococcus is very rapidly destructive. Since the lesion may be due to one of several strains, sufficient time is not available for scientific treatment with vaccines. The variety due to the staphylococcus is much less malignant, consequently it is much better adapted to vaccine therapy. The various tubercular lesions of the eye have been treated with tuberculin. Carefully administered, the results are often very satisfactory. Many favorable results have been recorded from the use of serum and vaccine therapy in metastatic iritis of the gonorrheal variety.

Non-syphilitic cyclitis of a chronic type with deposits on the posterior layer of the cornea usually responds unsatisfactorily to the ordinary methods of treatment. Bacteriological investigation ordinarily shows the tubercle bacillus or the staphylococcus of a modified virulency as the causal agents. When the tests for syphilis and tuberculosis are negative a paracentesis of the anterior chamber is made whereby the aqueous can be used for bacteriologic examination and the preparation of a vaccine. By repeated paracentesis and the proper vaccine therapy, surprisingly good results are often secured. Bacteriologic examinations with the proper vaccine therapy, for immunity prior to operative procedures on the globe as well as the postoperative infection of a sluggish variety, are frequently very successful and its use is being extended.

During the past year a number of operative procedures have been modified which have attracted more or less attention. Operations for ripening immature cataracts have generally been unsatisfactory, although the need is well nigh imperative. The long period of time required for a slowly developing cataract to mature is a source of much inconvenience and many times an actual hardship on the patient. The preliminary capsulotomy revived and revised by Dr. Homer Smith is receiving favorable comment by ophthalmic surgeons. He performs the operation at least

six hours before the extraction. The operation consists of two superficial incisions horizontally and vertically through the anterior capsule with a specially devised knife-needle characterized by a short-bellied knife. The claim is made that the sticky cortical matter of immature cataracts is much more easily and satisfactorily removed. The aqueous entering through the opening made by the capsulotomy causes a separation between the lens substance and capsule. The writer's limited experience with the procedure has been satisfactory.

A few cases of retinal detachment have been reported as treated by the injection of air into the vitreous. The subretinal fluid is removed through a rather large cannula and the air is injected through a fine cannula into the vitreous at a point outside the detached area. The air disappears inside of twenty-four hours. It cannot be recommended as a routine procedure, since the operation is on trial and the results have not been very satisfactory.

THE YEAR'S WORK OF THE INDIANA STATE BOARD OF HEALTH

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It is impossible to give the vital statistics of the state for the calendar year, 1912, for the reason that complete birth and death reports will not be received by the State Board of Health for the months of November and December until after the close of the calendar year.

SUMMARY OF MORBIDITY AND MORTALITY FOR THE YEAR ENDING OCT. 30, 1912

During the twelve months ending Oct. 30, 1912, there were 51,721 births reported, as compared with 54,973 births in the corresponding period ending Oct. 30, 1911. This shows an apparent decrease of 3,252 births. Total number of deaths from all causes for the twelve months ending Oct. 30, 1912, was 34,404, as compared with 33,953 deaths for the twelve months ending Oct. 30, 1911. This shows an increase of 451 deaths. The following table shows the comparative deaths from principal causes for the twelve months ending Oct. 30, 1912, as compared with the number of deaths from the same causes for the twelve months ending Oct. 30, 1911:

| | Year Ending Oct. 30, 1912 | Year Ending Oct. 30, 1911 |
|---|------------------------------------|------------------------------------|
| Principal Causes of Death | | |
| Pulmonary tuberculosis | 3,302 | 3,361 |
| Other forms of tuberculosis | 602 | 685 |
| Typhoid fever | 636 | 736 |
| Diphtheria | 414 | 384 |
| Scarlet fever | 91 | 177 |
| Measles | 65 | 280 |
| Whooping-cough | 239 | 302 |
| Lobar and broncho pneumonia | 2,807 | 2,732 |
| Diarrhea and enteritis (under 2 yrs.) | 1,453 | 1,445 |
| Cerebrospinal fever | 24 | 29 |
| Epidemic poliomyelitis | 38 | 44 |
| Influenza | 442 | 647 |
| Puerperal septicemia | 290 | 190 |
| Cancer | 1,902 | 1,794 |
| External causes | 2,507 | 2,464 |
| Small-pox | 11 | 3 |
| Total number of deaths from all causes | 34,404 | 33,953 |

During the twelve months ending Oct. 30, 1912, as compared with the corresponding period preceding there was a decrease in the number of deaths from tuberculosis, typhoid fever, scarlet fever, measles, whooping-cough, cerebrospinal fever, epidemic poliomyelitis and influenza. There was an increase in the number of deaths from diphtheria, pneumonia, diarrhea and enteritis (under 2 years), puerperal septicemia, cancer, external causes and small-pox.

The last legislature in enacting the so-called infant blindness law required births to be reported within thirty-six hours instead of within twenty days, as formerly. Two years of constant agitation on the part of the Department of Vital Statistics has resulted in a partial observance of this requirement so that birth reports are now received more promptly. Physicians throughout the state should realize the importance of prompt and accurate birth returns and should make a complete return at the time of birth without any delay whatever.

THE SCHOOLS AND PUBLIC HEALTH

While the primary object of public health work is the prevention of disease, the ultimate object must be the rearing of a healthy race and the attainment of the highest possible degree of efficiency. This ultimate object of public health will be accomplished largely through the public schools. To prevent or control the spread of infectious disease among children in school has long been considered the only function of public health work with little or no care of the child or thought of the conditions by which the child is surrounded. What may be called the "New Public Health" seeks not only to protect

the child from communicable diseases, but by means of better schoolhouses, health supervision and physical education to prevent health loss and conserve the physical soundness and efficiency of the child. Indiana took a long step forward in public health work when the legislature of 1911 enacted the sanitary schoolhouse law and the medical inspection law.

Under the sanitary schoolhouse law, which became effective in April, 1911, there have been erected in the state 116 one-room school buildings at a cost of \$251,190. Fifty-two one-room school buildings have been remodeled at a cost of \$50,800. One hundred and fifty school buildings of more than one room have been erected at a cost of \$3,032,140. Fifty-three buildings of more than one room have been remodeled at a cost of \$349,950. This makes a grand total of 371 school buildings, new or remodeled, at a cost of \$3,684,080 in the state in eighteen months from the enactment of the sanitary schoolhouse law. In every case where new buildings have been erected, or old buildings remodeled, the old buildings were dilapidated and insanitary, and were condemned by the law as being totally unfit for school purposes. In the same period the State Board of Health has condemned ninety-four school buildings and there are at present forty-nine petitions on file with the state board requesting a sanitary survey of school buildings in various parts of the state. The State Board of Health will not make a sanitary survey of a school building until a petition, signed by at least ten patrons, requesting such sanitary survey, has been filed with the board.

Truly the people of Indiana are awakening to the importance of conservation of child-life. If it be true that the schoolhouse is the visible index of the attitude of a community toward its children, then it is also true that a higher valuation is being placed on school children in practically every community of the state. There are 9,364 schoolhouses in Indiana, fully 50 per cent. of which are insanitary, unfit for school use and constitute an assault on childhood. The old, dilapidated, insanitary and unfit schoolhouse must go. The enactment of the sanitary schoolhouse law marked the first step in the passing of this relic of former days.

MEDICAL INSPECTION LAW

Under the medical inspection law, which is advisory only, supervision of the health of school children more or less complete, has been established in many city schools and in some township schools throughout the state. No just criti-

cism has been made wherever such supervision has been established. On the other hand the record of epidemic outbreaks prevented or shortened in duration, of schools kept open, and school efficiency increased, is ample evidence of the wisdom of the law. Systematic supervision of the health of school children will become more and more an essential part of school administration, and wherever the active cooperation of school officials, parents and teachers is had, such supervision will bring large returns in increased health and efficiency.

THE HYDROPHOBIA LAW OF 1911

Under this law it is made the duty of the State Board of Health to provide means for giving the Pasteur preventive treatment to persons in danger of hydrophobia and who are without visible means to pay for such treatment. Since July 1, 1911, when the fund as provided by law first became available, the State Board of Health has treated 120 cases at a total expense of \$4,892.91. This expense includes not only the expense of treatment, but the traveling expense of patients, their living expenses while under treatment, and the equipment of an institute for giving the treatment. The treatment is given at present in a room at the state house under the supervision of the laboratory of hygiene of the State Board of Health.

PURE FOOD AND DRUG DEPARTMENT

The food laboratory reports the analysis of 2,050 samples of food in 1912. Of this number 1,504 samples were legal and 546 illegal either because of the presence of ingredients not allowable under the law such as chemical preservatives, foreign colors or make-weights, or because they were misbranded or otherwise mislabeled. These figures do not show the real condition of the food market since only articles suspected of being illegal are now collected. Long familiarity with the markets have taught the inspector that at least 95 per cent. of all the goods on the grocery-store shelves comply with the food law and it is among the 5 per cent. of goods of unknown brands that he now looks for doubtful samples. The difference between the conditions of to-day, and those obtaining when the laboratories were opened seven years ago when 42 per cent. of all varieties of food stuffs were reported as impure is a complete proof of the value of pure-food legislation adequately enforced.

The control of standard pharmaceuticals is a matter of routine investigation, but the study of toilet preparations and patents, and the so-called

advertised proprietaries, requires original work in fields little understood.

During the past year the drug laboratory has given much time to such work in the endeavor not only to protect the consumer against the use of misbranded and mislabeled and possibly deleterious drugs, but as well of protecting him against the fraudulent practices of the manufacturer who knows the value of publicity and who by profitable experience has learned how to sell a 5-cent article for \$5. In addition to such work many samples of great variety have been submitted by physicians who for one reason or another have desired to know the character of the drug they were using.

During the year 399 drug samples have been examined. Of this number 257 were passed as legal and 142 or 35.5 per cent. as illegal.

Those who have to do with the analysis of samples submitted to the drug laboratory constantly marvel at the character of goods which are sold under disguising names for high prices. The waste of money in the purchase of patents, proprietaries and toilet preparations is astonishingly great, and in spite of the activities of the federal government and state departments, the people are as credulous as before any attempt was made to enlighten them.

During the year 173 cases were filed for violation of the food, drug and sanitary food laws. In two cases the defendant was found "not guilty." In 171 cases the defendants were found guilty and in nearly every instance fined \$10 and costs. But few cases have been appealed. One case involving the sale of milk containing visible dirt in which a verdict was rendered against the state by the circuit court, the supreme court has sustained the contention of the department, overruling the verdict of the lower court and finding the defendant guilty of violating the law in the sale of milk containing visible dirt.

Sixty-four cases were brought because of the sale of dirty milk and cream. Thirty-three cases were brought because of violation of the sanitary food law. Two of these cases were brought against dealers who did not properly protect their food displayed for sale and thirty-one cases were brought because of general insanitary conditions.

During the year the inspectors of the food department visited 13,901 places where foodstuffs are manufactured or sold. Of this number 219 places were reported as in excellent condition, 8,160 as good, 4,720 fair, 688 poor and 114 bad. This report shows a decided improvement in the sanitary condition over other years. The report of the inspectors shows the dairy situation to be deplorable and so far as we can determine each

year brings little or no improvement. The problem is too large to be handled by this department, provided as it is with but five inspectors, to whom is given the control of every kind of food-producing and distributing establishment, and as well the enforcement of other important laws. The 200,000 dairies now operated in Indiana can only be regulated by local authorities. As yet the cities and towns, except in a few instances, have not given the attention they should to the regulation of the milk-supply. Where city ordinances are in force, they are inadequate or unobserved. The spasmodic efforts of the local health officer result in little permanent improvement. The installation by milk distributors of modern plants where the product they handle is cleaned and pasteurized, offers a remedy for dirty milk, if the customer is not disposed to investigate the condition of the milk as it is produced at the dairy, and is content only to know that the bottle left at the kitchen door has been filtered and sterilized. The efforts of milk inspectors and of this department in the direction of an improved milk-supply, are hampered by the notorious fact that Indiana, almost alone among the states, has no law compelling the use of the tuberculin test, and indeed makes the application of the test to dairy cattle well-nigh impossible. To work for clean milk in the interest of the infant is a creditable, though at present, forlorn task, but when it is realized that even if the milk be clean it may be the product of a diseased animal the task of regulating the dairy and its products becomes so stupendous as to bring discouragement, and almost to draw an acknowledgement of defeat.

The method adopted for the enforcement of the sanitary law by the issuing of condemnation notices by the department has after three years' trial proved to be most satisfactory. During the year 573 places were condemned. Such condemnation notices are issued against the owner or proprietor of the business in question and are served on him by the local health officer. After the notices are served, the health officer makes a second inspection to determine whether or not the orders have been carried out. The thanks of the department are due the health officers of the state who are assisting in this most excellent work.

During the year 1,164 samples of water were analyzed. Of this number 616 samples were classed as good, 309 as bad, and 189 as of doubtful quality. Of the 947 samples from private supplies 587 were from shallow wells. Of this number 254 were potable. Including the bad and doubtful waters in the same class 60 per cent. of the shallow-well waters are unsuitable for use. This figure is almost exactly the same as that

reported each year during the seven years the water laboratory has been in operation. This constant factor, determined by the analyses of hundreds of samples from every part of the state, sent in under all sorts of conditions by health officers, tenants and land owners alike, brings us to the inevitable conclusion that the shallow well is an ever-menacing danger. The number of shallow wells in the state is not reported, but without doubt more than 250,000 are in daily use. With more than half this number contaminated by the waste products of the home and modern industry, the health officer, whose duty it is to safeguard the health of his community, even to the extent of knowing the character of every well-supply in his jurisdiction, is confronted by an enormous task, which must not, however, be neglected because of its magnitude.

One hundred and forty-nine shallow-well samples were suspected of causing typhoid fever. Sixty of these samples proved to be pure, sixty-five were bad and twenty-four doubtful. The ratio of good to bad in these suspected samples is a little lower than in shallow wells as a whole, but the percentage of bad samples is not so greatly increased as to warrant the conclusion that typhoid fever is usually a water-borne disease.

WORK OF THE BACTERIOLOGIC LABORATORY

The year ending Sept. 30, 1912, has been the most successful in the history of the laboratory, almost 20,000 specimens being examined. The work of the laboratory in assisting local health officers in dealing with the numerous epidemics of diphtheria, which are usually prevalent during the first part of the school year, impressed local health officers, school authorities and citizens generally with the efficiency of scientific control of diphtheria by means of bacteriologic examinations.

Several new phases of work have helped to bring the laboratory into closer touch with the people of the state, as well as with the physicians. The new lines of work are the furnishing of hygienic exhibits for use in schools for teaching hygiene; the introduction of an outfit in which to send samples of stools from suspected typhoid-bacilli carriers; the supplying of antityphoid vaccine free of charge to physicians for immunizing purposes; the giving of antirabic treatment to persons bitten by animals having hydrophobia, or supposed to have hydrophobia.

The following table shows total number of specimens examined and the comparative increase in five years:

| Year | No. of Specimens |
|------------|------------------|
| 1908 | 8,087 |
| 1909 | 7,951 |
| 1910 | 8,786 |
| 1911 | 11,142 |
| 1912 | 19,450 |

There were 21,664 outfits sent out to physicians in 1912 for sending specimens to the laboratory. Eighty persons from the following counties were given the preventive treatment for rabies: Bartholomew, 2; Blackford, 1; Cass, 1; Clinton, 1; Dearborn, 11; Dubois, 1; Fountain, 1; Hamilton, 1; Hancock, 1; Harrison, 1; Hendricks, 1; Howard, 1; Huntington, 1; Jasper, 1; Jefferson, 2; Jennings, 6; Marion, 16; Monroe, 1; Montgomery, 2; Porter, 1; Randolph, 2; Whitley, 2; Rush, 1; Scott, 1; Sullivan, 1; Vanderburg, 2; Vigo, 4; Warrick, 2; Washington, 4; Wayne, 8.

Three hundred and five brains of all kinds were examined for negri bodies, 50 per cent. of which were positive. In addition to the smear examination and guinea-pig injection for negative brains, a Spencer automatic carbon-dioxid freezing microtome has been installed for the sectioning of the gasserian ganglia. The whole process of freezing, cutting and staining requires only about four minutes, the usual method with paraffin or celloiden requires almost a week. In a total of sixty-six stool examinations, three typhoid-bacilli carriers were detected. There has been considerable dissatisfaction and uncertainty concerning the Widal test for typhoid fever. After comparing the clinical history of many cases with the laboratory findings, it seems that the following conclusion might be drawn; viz., that a reaction showing complete loss of motility and partial agglutination might be taken as equivalent of a positive test if supported by the clinical evidence.

Where one or more cases of diphtheria occur in a school, the laboratory has advised the taking of cultures from all the children in the school. From 10 to 40 per cent. of the children have been found to have diphtheria bacilli in their throats. It has been advised that these children be isolated as "carriers." In some cases, diphtheria bacilli persist in the throat for a long time, even after heroic measures have been taken. From these patients diphtheria bacilli have been isolated and tested for virulence. Some were avirulent. In some epidemics there is present along side an infection with frank diphtheria, an infection with diphtheria-like organisms that possess little or no virulence. It is exceedingly difficult and sometimes impossible to accurately differentiate these two types of organism in smears for cultures.

The demand for antityphoid vaccine has been very great. Several hundred doses have been sent out. Many nurses are taking it and many physicians are immunizing entire families in which there is a case of typhoid.

OUR ASSOCIATION'S ACTIVITIES

A. C. KIMBERLIN, M.D.

President Indiana State Medical Association

INDIANAPOLIS

Owing to the rapid progress and new developments in medicine in the past few years, it seems our Indiana State Medical Association, in order to accomplish the greatest good for the greatest number, could with propriety inaugurate some new customs and practices governing the next session. In order that this may be approached in the proper light, it is well not to overlook the important fact that our Association in reality is intended for the benefit that it brings to the great masses of the profession, and not, as too often thought, for the advantage of its officers or medical men who have attained some distinction or enjoyed marked success in their respective communities. It is a matter of regret that too frequently men holding offices regard it simply as an honor without appreciating the responsibilities that go with the office. To hold an office is an honor, and should always carry with it an appreciation of duty, which may not be prescribed though distinctly implied, and should make the holder all the more appreciative and active in the discharge of his duty. A dull, dead, indifferent officer at once blocks all progress, regardless of his resources either in material or territory.

As the strength of our Association is dependent on each member of the profession, a medical society officer's fundamental duty is due each individual physician of the district over which the officer presides, even though all the medical men of the district may not at the time be members of the medical society. County secretaries should be most careful in keeping records, securing new members, reporting society conditions to the state association secretary and the society proceedings promptly to THE JOURNAL, exploiting the purposes and advantages of medical organization and striving to arouse the latent energies of each member of the profession, which, when done, would furnish sufficient force, if properly organized, to make any reasonable medical achievement possible.

The county medical society secretary, without doubt, fills an important office, and should be chosen with great care for his special qualifications. His selection should be purely on account of his ability and interest, for without active and prompt cooperation on his part, interest in local conditions dies, and the State Association Secretary's work becomes very difficult, if not impossible.

Each county should have a medical organization. If the membership is too small for an independent organization, they should affiliate with some adjoining county. Geographic location, with the use of automobiles and good roads (and every doctor should be a member of a "good roads committee"), no longer offers unsurmountable difficulties, and I hope the Secretary's report for 1913 will show each county with an organization.

The best way for a physician to keep abreast of the times in medicine is to attend medical meetings and read medical journals. Begin with the local medical society, for it furnishes a stimulus to study. It allows a man an opportunity to gather new ideas from his neighbor, and affords a chance to engage in discussion, an opportunity every physician should improve, for a meeting is most profitable to those taking an active part.

It is unfortunate there should be any complaint that too few appear on the State Association programs. The truth is the program committee during the last few years has had difficulty in getting enough men to prepare themselves properly to take part in the exercises. One thing is certain: the public is demanding from the medical profession from year to year a much higher class of service, which behooves all to take the pace of medical progress and become active in medical work and organization. The profession of the state is certainly most fortunate in having a medical school under state supervision and control, which must act as a stimulus and inspiration to medical study and progress, the good effects of which should be felt by the profession of the entire state and arouse in each a feeling of deep personal interest and pride.

As to our State Association scientific program for the year 1913, a few changes seem advisable. First, we should feel that our session is to be one for purely scientific work and not play or pleasure; second, every physician appearing on the program should early recognize the responsibility of his position, forget about the honor, and begin the preparation of his paper sufficiently early to thoroughly familiarize himself with not only his immediate subject, but all the side lights. No good lawyer ever goes into court without having his case thoroughly studied, with all the ref-

erences at hand; but how common for a medical man to appear in a meeting to deliver a paper and introduce his subject by saying he did not have time to begin its preparation until a day or two before. Papers and subjects presented before our Association should not only be begun early and thoroughly studied, but should be furnished at least two months before the session.

Heretofore much has been said and requests made for abstracts of papers, but nothing of the kind has been done. I hope the program committee this year will exact an abstract of each subject to be presented, and have the same sufficiently early that it may be printed with the list of the discussants at least one month in advance of the session. This should be made a conditional part of appearing on the program. As has been previously done, it has been manifestly unfair to the discussant who came to the session not knowing what subject or the gist of the paper he was listed to discuss.

Also those presenting and discussing subjects should not forget that often the awkward-appearing man seated in the back row has for years done a large country practice, is honest, resourceful in emergencies and eminently practical, though still anxious to know more of modern medicine. Do not offer him too many immature or fine theories. He is a good observer, also a good thinker, and for years in his own way has done much clinical study and research work, and may know as well as any one how to anticipate or secure certain end-results in a given case or condition.

The number of papers this year should be materially cut down, as previously our program has been too crowded. A concise, practical presentation, followed by a live and clean-cut discussion, is the life of any medical meeting.

Evidently the House of Delegates did a very wise thing in appropriating \$200 for the use of the Committee on Pathology in making an exhibit. In this year's work the Committee on Pathology will cooperate with the Scientific Committee and furnish material and whatever help it can to demonstrate and make clearer the subjects being presented before the various sections. To physicians over the state who will early enough signify the subject they would like to present, the committee in charge of the pathological department will be glad to furnish material to make his presentation more perfect and complete, but they must be advised sufficiently early to make such collections and preparations of material possible.

As to committees: It is to be hoped they will not be discouraged or view their work as unimportant if there is no immediate return for their

efforts. Committee work is a comparatively new thing in our medical associations, though the work of the various committees has been the entering wedge of most that has been achieved in medical organization and progress. While the recommendations may not immediately materialize, the committees take the preliminary steps to set the machinery going in the proper direction, consequently their work in their respective fields and their reports should be done and framed with great care and sincerity.

The question of compulsory ventilation has become a serious problem, especially in public conveyances, such as railroad trains and interurban cars. It is not an uncommon thing to find interurban cars loaded to their utmost capacity, and women in a fainting condition solely for the want of ventilation. Such passengers may as well have been subjected to the influence of an anesthetic, as often it means practically the same thing so far as subsequent possibilities are concerned. Also the carrying by railroads of passengers who are subjects of advanced consumption should be under the supervision of the State Health Board, as such patients frequently travel long distances seeking better climate, often occupying private compartments and employing every means to conceal the nature of their disease, thereby making the danger to others much greater. Such patients should be allowed on railroad trains only by permission of the health authorities, and the railroad officers should be compelled to employ special means of cleansing and sterilizing the car or compartment after such occupancy before allowing other and innocent passengers to use the same quarters.

Our State Health Department, whose work and achievements are not fully appreciated, though ranking among the very first of the states, should be better supported by the profession. To appreciate the increasing interest in this subject, one has only to look at the growth of the Section of Public Health and Preventive Medicine of the American Medical Association, which at present has in attendance at its meetings surgeons, pathologists, bacteriologists, therapists and practically all other specialists. The practice of medicine has become more and more philanthropic, and the slogan of the day is "prevention" not "cure," yet the slowness of the public, and to an extent the profession, in taking up hygienic and preventive medicine in a practical way has annually cost thousands of lives and enormous sums of money. That the public is slow in responding is still seen in their allowing the consumptive to spread disease by spitting on the

sidewalk or in public conveyances without appreciating the dangers to those about him, and the public not fully realizing with what ease enforcement of health laws would remove all danger. The American Public Health Association has a membership of more than 50,000, with some of the highest authorities in medicine in the United States among its members. This association has been so impressed with the necessity of teaching "prevention" that they have made a liberal appropriation for paying the expenses of any member who will volunteer to make public addresses and give lessons on the important subject of preventive medicine. The fight against tuberculosis is already beginning to show good results, but there are many other dangers to which the public must be awakened. The better way seems through the medium of children while in school, who should be taught how to grow strong, be healthy and happy, and in whose training the fundamental principles of hygiene should early be made conspicuous, and taught that bad teeth, diseased tonsils and gums are responsible for many incurable diseases in later life. To this end a state law requiring regular and thorough medical inspection of all public, parochial and private school children would be of great assistance.

The question of finances is a matter that probably should receive some attention at our next year's meeting. It evidently would not be an altogether wise procedure for the House of Delegates to have first and final say in the appropriation of funds, or vote allowances for the expenses of our Association. For the delegates to recommend seems supremely proper, but owing to the short term of service of the average delegate, he is without sufficient opportunity to become acquainted with the society's needs and resources, and, too, the House of Delegates being so large a body, its members should not be expected to do more than advise or recommend in matters involving finances.

The Council being a smaller body, chosen with greater care, most members with much longer term of service, and all closely in touch with the conditions and finances of the Association, should take final action. This would at once suggest the necessity of each district selecting as its councilor a man who is active and wide-awake to the interests of not only the State Association, but his local societies as well. None of us can doubt the excellent service we have received from our councilors, almost uniformly as individuals, and services of the highest class collectively.

If we are to keep in touch with the times in medical affairs, we must give our Secretary more encouragement and support, as his office and work are of the utmost importance to all, from the individual member in the farthest-away county to the Editor of *THE JOURNAL*. It is unreasonable to expect him to give too much time and thought to developing and systematizing our medical affairs, of his own knowledge and initiative. I think he should be required annually to attend the National Meeting of State Secretaries, and the expenses should be borne by our Association. Other states send one and sometimes two officers to this meeting, that they may keep in touch with the new things and furnish their societies the latest ideas in medical work and organization. While our finances should be carefully guarded, yet it is not good business to keep funds in the treasury when there are so many ways by which a small amount safely and judiciously expended each year would bring such marked returns to the Association.

Our medical defense passed almost through its first year without having a single suit to defend. During the last four months there has been six suits filed and one other threatened against its members. This experience is quite in accord with that of many other states. New York in 1912 had an increase in malpractice suits of more than 100 per cent. California reported a "tremendous" increase in the number of suits filed during the past year, and many other states make similar reports, though Michigan claims they have had fewer, this being the exception.

There seems to be quite a difference of opinion as to the relative worth and practicability of our medical defense, and from a few there have been adverse criticisms. This is unfortunate. While true, some of prominence or independence financially may not greatly care for the financial or moral support offered by our Association, yet with the majority it is a matter of great importance, especially the moral support.

The question has been raised that the city physician profits most, while as a matter of fact statistics show that the country practitioner, in proportion to numbers, is sued more frequently than physicians in larger towns. Suit brought against a physician practicing in a small village or in the country suffers greater injury to his practice than one located in a larger town. For a defendant to have the merits of his case investigated and reported on favorably by an honest and capable board of physicians lends weight to his defense before the public as well as the court. While the defense committee has no idea of interfering with the public's rights, yet it has been shown that

nearly 60 per cent. of all suits are blackmail, kept within legal bounds by some greedy or dishonest lawyer. Such an attorney grows very weak in his efforts when he finds he is going to engage the opposition of an honest, earnest, organized profession.

The Committee on Medical Defense, at its last meeting, elected Dr. J. Rilus Eastman chairman for the ensuing year, and Mr. Alexander Cavins as its legal adviser, our object being to develop what will be called the Medicolegal Defense Committee. All members of the profession against whom civil malpractice suits are brought should at once communicate with the chairman of this committee (also those threatened with suit), giving all data as to the nature of the complaint, its cause so far as known; the moral, intellectual and financial standing of the plaintiff; whether the patient had followed the instructions in treatment; had there been a consultation and any adverse or open criticism by other members of the medical profession. A complete detail of the facts is necessary for prompt and intelligent action on the part of the Medicolegal Defense Committee.

The cause of increase in malpractice suits is one that should interest all and might be summed up by saying "hungry lawyers," "greedy doctors" and "a better educated public in medical questions." Through the constant teaching, training and open methods of discussion as now very properly practiced by the medical profession, the public is rapidly becoming familiar with the possibilities of scientific medicine of to-day.

The question of the use of antiseptics, the treatment of fractures and how best to prevent the spread of infectious diseases are examples of rather common knowledge among the laity.

Medical practice is rapidly changing as medical science progresses, which should and must unite the profession in a closely cooperative as well as a strongly defensive attitude. Practically all of our malpractice suits have been brought in surgical cases, the great majority of them by the poor and indigent who seem an easy prey to the ill-advised pleadings of a dishonest lawyer. Though most of our suits have been brought in surgical cases, the medical-defense plan should make a strong appeal to every country practitioner, as he does both general medicine and surgery as it occurs in his community. Although the court holds he does not have to provide himself with an *x-ray* apparatus for the diagnosis and treatment of fractures, or have a laboratory equipment and be qualified to make bacteriologic diagnoses, or be skilled in all the technical methods of correct diagnosis and surgical treatment.

he is expected to keep in touch with his profession and employ ordinary skill as best the circumstances will permit, which when done makes it very easy for the profession at large through its defense feature to offer him very strong moral support and financial aid for his defense.

Physicians generally, in cases of doubtful termination, should be more frank in giving either the patient or his family the facts or uncertainty of results in a straightforward manner, which will often save him much worry and embarrassment later. It is best to make an honest and intelligent appeal to the good sense of the patient, and at the same time convince him that he is doing all that can be done, or if in doubt, do not hesitate to call his neighbor in consultation. As an example, injuries to the elbow-joint are notoriously difficult to treat, and such patients should early and plainly be told of the uncertainties of results following such injuries. When such a course is pursued early and voluntarily, the matter of defense becomes comparatively easy. It is a matter of profound regret that some physicians are so indiscreet as to make open criticism of his neighbor's work. This is found to be a frequent exciting cause of malpractice suits, and one of our number had its origin exactly in this way. When the time comes I hope there will be some action taken that will have for its influence the regulation and proper handling of such offenders. If a criticism seems warranted, let it be made directly to the physician in a strictly professional and dignified way.

The experience of New York state in defending malpractice suits has been extremely satisfactory. Out of 300 they have only lost one. California lost one out of fifteen. But the greatest value seems to be the influence the defense association yields in discouraging suits altogether, or effecting a compromise in the event the defendant is found to have been derelict. The Indiana State Medical Association, representing such a large organization and incorporated body, should have a legal adviser, particularly to look after affairs of medical legislation, as many bills very adverse to our work and progress are presented which are not technically understood or appreciated by the profession until too late. Also measures that have directly to do with the medical laws concerning the State Board of Medical Examination and Registration or the Board of Health affairs, and many other interests should be regulated and safeguarded, not by the voluntary efforts alone of the medical profession, but by the advice as well of a good legal man.

Every qualified and honorable practitioner of medicine in our state should be a member of the Indiana State Medical Association: first, for the purpose of making a better organization; second, for the personal good he derives from such association; third, it allows him at a very nominal fee, a state medical journal that is the peer of any; fourth, for the benefit of the medical defense; and lastly, all are interested in medical progress, medical education and medical achievements which have marked Indiana high in the list of all the states.

THE Fee-Splitting Problem is the title of a symposium of papers by well-known Detroit physicians which appears in the October number of the *Detroit Medical Journal*. In conclusion the gentlemen who comprise a committee appointed by the Wayne County Medical Society to investigate the subject have presented resolutions in which fee division is condemned, and in which those members of the Wayne County Medical Society who are found guilty of fee division are requested, and if need be compelled, to resign from the society. One member of the committee has suggested that the secretary of the society shall be authorized and directed to submit a statement to each member of the society for his signature, in which those who sign the statement declare that the secret division of fees among physicians is inconsistent with the highest and best ideals of the medical profession and that they neither approve of nor will they engage in such practice.

As Dr. J. H. Carstens, the well-known Detroit surgeon, says: "It is too bad that the noble profession of medicine should be prostrated and disgraced by some of its members. . . . This commission business stops progress. There is no incentive to be able and to keep up, no chance for a man to be the best man, because the grafters who take a commission would not come to you because you are the ablest, but they go to the man who pays the highest commission; so that the poorest sticks without judgment or manual dexterity often get the work and do the big business."

As we have often stated, the solution of this problem rests with the public, and the public has taken hold of the question in some communities, and will take hold of it in many others if the conscientious and right thinking medical men who are opposed to dishonest practices make it a point to seek the aid of the public in stamping out the iniquitous practice.

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EDITORIALS

**TREATMENT OF HUMAN CANCER WITH
INTRAVENOUS INJECTIONS OF
COLLOIDAL COPPER**

So multifarious have been the "cancer specifics" offered to the profession and the laity that most scientific observers have become decidedly skeptical concerning anything that is offered in this line.

Among the numberless agents which have run the gamut of professional and lay enthusiasm toward the solution of the cancer problem, only to be entirely shelved or else relegated to a very circumscribed corner of cancer therapy, may be mentioned arsenic, trypsin, amylopsin, trypsin and amylopsin, vaccine therapy, Coley's fluid, x-ray, radium, eosin and selenium.

Quite recently, very flattering reports have emanated from the hands of Loeb, McClurg and Sweek,¹ concerning the effects on human cancer, of intravenous injections of colloidal copper.

It has only been within the past twelve years that experimental study of tumor growth made possible a systematic analysis of the conditions on which the life and growth of tumor cells depend, and it seems fair to conclude that a more rational basis for cancer treatment is thus established.

In 1901 and 1902 Loeb began his investigations concerning the effect *in vitro*, of various chemicals on the vitality of tumor cells. By grading the strength of such a substance as KCN he observed a gradual decrease in the virulence of the tumor cells.

More recently v. Wassermann and others found that repeated intravenous injections of a combination of selenium and eosin brought about a rapid retrogression of the tumor in mouse carcinoma, although the effective dose was very near the lethal dose of the substance.

Within the past six months there have appeared in the French lay press reports of cases treated with apparently favorable results, by Gaube du

Gers with colloidal copper and by Laurent and Bohec with colloidal selenium.

In their first experiments Loeb, McClurg and Sweek tested the effect of various copper preparations on mouse carcinoma. The form of tumor used was a very rapidly growing one, and the lethal dose of their preparation in various species of animals was established. Since most human cancers grow much more slowly than mouse cancer, it was thought that more favorable results might be expected in man.

The first preliminary experiments on human cancer were carried out last May and taken up again on a larger scale last October and November.

The method of preparation of the solution is not given by the authors in the article referred to except to say that it is a colloidal solution of copper prepared according to Bredig's method. Three hundred to 400 c.c. of the solution warmed to about body temperature, was slowly introduced intravenously each day. A rise of temperature to 100 or up to 102 F. invariably followed the injection, but subsided within six hours. A more or less severe chill frequently accompanies the rise of temperature but it decreases in severity after a certain number of injections have been given and can often be avoided by decreasing the amount of fluid injected. An increase in pulse-rate usually accompanies the rise in temperature and any preexisting cardiac irregularity is apt to be temporarily accentuated. No other notable changes followed the injections, and, on the whole, the patients tolerated the injections very well. The appetite, strength and complexion improved and the erythrocytes seemed rather to increase than to diminish.

As for the local effects on the tumor, a circum-jacent hyperemia appeared in from two to four hours after injection, accompanied, when the tumor is open, by an increased secretion from the ulcerated part of the tumor. This hyperemia and discharge-increase recur at each of the first few treatments; then gradually subside. Accompanying these there is an increased sensitiveness of the tumor, disappearing along with the hyperemia after about fifteen injections, at which time the discharge is usually much less than before treatment was begun.

One of the early results of the injections noted was the relief from pain, to such an extent even that the use of narcotics could be dispensed with. In the tumor proper there resulted a gradual but continuous necrosis and resorption, or sloughing. This retrogression, of course, varied in different cases, but it was always continuous and at the

1. Interstate Med. Jour., December, 1912.

time of the report, two of the cases were very near a complete cure. The other cases are improving steadily and although the authors venture no definite statement as to their probable ultimate fate, they feel very much encouraged.

Cases for treatment, selected, were those that were, in the main, observable by the naked eye, and all but one had been operated on before without success; several had been likewise unsuccessfully treated with the *x*-ray. All the cases were practically hopeless from the standpoint of surgical or dermatological treatment.

Their report concludes with the histories of eight patients who have had the greatest number of injections. A brief history of Case 2 will summarize the favorable effect in what seemed a hopeless case.

Farmer, aet. 74, operated on fifteen years ago and again three years ago for carcinoma of the right superior maxilla, referred to hospital with diagnosis of inoperable carcinoma in above-named area. Examination showed mass at angle of jaw, right side of face, and a mass beneath buccal mucous membrane, the induration of the buccinator muscle being so extensive as to preclude opening the mouth sufficiently to eat. Retraction of the cheek revealed an area about $1\frac{3}{4}$ by $\frac{3}{4}$ in. extending across the hard palate, elevated and white in color. Patient suffered from constant, intense pain.

X-ray exposure produced no improvement and on Oct. 15, 1912, injections were begun. Patient reacted very strongly to every increase in dose, but the intense pain ceased after the seventh injection. After the twelfth injection the patient could open his mouth and eat any kind of food, his only pain being during temperature rise following injection. December 2, after thirty-seven injections, the mass at the angle of the jaw has completely disappeared—all that remains of the mass and induration in the buccinator muscle is a few small white spots on the buccal mucosa, and all that remains of the growth on the hard palate is three or four white spots about the size of a pinhead. The patient's general condition is very much improved and he feels much better.

With the exception of two cases, which showed extensive glandular and visceral metastases, the effect of the injections in all cases treated thus far has been one of material benefit.

Concluding, the authors believe that we are now able to cause a gradual regression of human cancer of the various sorts, although as yet there is not much promise for the rapidly and extensively metastatic cases. It is hoped, however, to increase the applicability of the remedy, even to

the treatment of sarcoma and psoriasis. They do feel warranted in the belief that many cases of human cancer are more accessible to this treatment than rapidly growing mouse cancers, and that there exists no essential difference between cancer of rodents and human cancer.

THE WORK OF THE STATE BOARD OF HEALTH

In this number we publish an article concerning the year's work of the Indiana State Board of Health. It contains much interesting information which should be given consideration at the hands of the medical profession. It is pointed out that Indiana has accomplished a great work through the efficiency and enforcement of the laws pertaining to public health and sanitation. Indiana took a long step forward in public health work when the legislature of 1911 enacted the sanitary schoolhouse law and the medical inspection law. This has made it possible legally to condemn dilapidated and insanitary schoolhouses and to inaugurate supervision of the health of school children in practically all of the schools of the state. It is impossible to estimate the value of this work in bringing about increased health efficiency of the children of our state.

The pure food and drug department has accomplished much in protecting the consumer against misbranded and mislabeled, and possibly deleterious, foods and drugs. During the year 1912 the food laboratory analyzed over 2,000 samples of food. Out of this number, 546 were found illegal. During the year 173 cases were filed for violation of the food, drug and sanitary laws. In only two of these cases was the defendant found not guilty. The food inspectors visited 13,901 places where foodstuffs were manufactured or for sale. Of this number 219 places were reported as in excellent condition, 8,160 as good, 4,720 fair, 688 poor and 114 bad. This shows a decided improvement in the sanitary condition over other years, and the improvement may rightfully be attributed to the effect of legislation and enlightened public opinion.

A feature of food inspection which has not received the attention that it deserves is the regulation of the milk-supply, and for obvious reasons the state is unable to handle satisfactorily this large subject. Where city ordinances are enforced they are inadequate or unobserved, and customers are not disposed to investigate the condition of the milk as it is produced at the dairy, and are content to know only that the bottle left

at the kitchen door has been filtered and sterilized. The department is hampered by the lack of a law compelling the use of the tuberculin test, and in this connection it may be said that Indiana is practically alone in all of the states in not having and enforcing such a law.

To one who reads the report that is submitted by Dr. King, it becomes evident that the Indiana State Board of Health has not only done a tremendous amount of work, but that the work has been along progressive and exceedingly beneficial lines. The board deserves and should have the support and encouragement of every member of the medical profession, and every possible influence should be brought to bear on the legislature to increase the appropriation of money which will enable the board not only to continue the work but to broaden its sphere of usefulness.

QUALITY, NOT QUANTITY, FOR OUR MEDICAL SOCIETIES

In a most excellent presidential address delivered before the Seventh Indiana Councilor District Medical Society, Dr. Chas. A. White of Danville said some very pertinent things concerning membership in medical societies. After pointing out the advisability and necessity which requires that every competent, progressive and moral physician should be identified with his county, district and state medical association, Dr. White has this to say concerning the admission of undesirables to medical societies:

"While advocating thorough organization, yet I believe it unwise to urge the enrolment as members of two classes of physicians: 1. Those who are totally indifferent to medical progress. They will do little or nothing for the society, and the society can do but little for them. Yet they are the most likely to need, and the most likely to claim these benefits and protections. 2. Those known to be highly immoral, and I am sorry to admit that such there are, no matter what their education, scientific attainments or activities in the community. Recent requirements of medical schools for higher education have materially raised the professional standard. Why then not demand a correspondingly high moral rating? A highly educated person may be a moral leper and capable as such, when wearing the badge of membership, of doing far greater harm than he otherwise could do. We must not forget that the public holds our societies more or less responsible for the conduct of the members. We cannot reform them nor can we afford to harbor and thus bestow

respectability on these professional moral monstrosities."

Dr. White sounds a note of warning which we have often thought should be sounded and heeded during our activities to promote organization work. In our efforts to secure members in our local medical societies, we sometimes do not as critically analyze the qualifications of the candidate as is warranted and justified in the best interests of the profession. Our medical societies will be better off without members who are unscientific, unprogressive and immoral. It is quality and not quantity which really count in making of our medical societies what we desire that they should be. It is easier to keep out undesirables than it is to get rid of them after we have once taken them into our medical societies.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

The Journal of the American Medical Association, Jan. 4, 1913, says that good secretaries should be given life sentences, or, in other words, that a good secretary should be retained as long as he is willing to carry on his self-sacrificing work. We fully endorse this sentiment.

A SO-CALLED "sanitarium" at Columbia City, Ind., advertises that it positively guarantees to cure cancer and cataract without the use of the knife. What a pity it is that there is no law preventing the publicity of such rank deception and fraud! And the worst of it is the ignorant as well as the poor suffer, for they as a rule do not know how they are imposed on when they patronize such fakes.

THE directories of the county and district medical societies of Indiana, as published in the advertising pages of THE JOURNAL, are supposed to give accurate information. If for any reason there are errors, we desire to have our attention called to the matter so that due corrections may be made. The secretaries in particular are asked to furnish us with additions or corrections. In the case of the district society directory we regret to announce that one of the reasons why the

directory is incomplete as to date and place of meetings is because some of the district society secretaries do not furnish us with the necessary information.

Two persons have been arrested recently, charged with being implicated in the murder of Dr. Helene Knabe of Indianapolis. While the police held the theory that the woman physician committed suicide, some of the women of Indianapolis continued to believe that a murder had been committed, and instituted a quiet investigation which has finally resulted in the obtaining of evidence by detectives which has led to the indictment of two men said to have been guilty of the crime. It is reported that an appeal to the members of the medical profession will be made for funds to prosecute the case.

AGAIN the same old story. To publish a newsy medical journal we must have the cooperation of our readers, and particularly the officers of medical societies. We want news notes, personals and medical items of interest. Newspaper clippings with date and paper from which they are taken are always welcome. More important than all, we want reports of county and district society meetings and notices concerning the place and time of holding the meetings. In sending in items it should be remembered that the first of the month is the latest date on which we can accept copy and promise that the same will be used in the current number of *THE JOURNAL*.

"DOCTORS are more jealous of each other's prosperity and success than any other class of business or professional men," is the remark made by a traveling salesman. We are inclined to believe that there is some truth in the statement if we are to judge from the manner in which medical men fail or refuse to cooperate for their mutual advantage and profit. It is well worth our time to engage in a little self analyses occasionally and determine wherein lies the fault which calls forth such a sentiment as we have frequently heard expressed. We should not wait for the beginning of a new year to correct some of the faults which make us the target for criticism concerning the attitude we bear one toward another. Let us not forget that what is good for one physician is good for all, and in unity of purpose and cooperation in carrying out the highest ideals of our profession lies the greatest measure of success and satisfaction with our life and station.

IN this number we publish several articles dealing in a general way with the progress in the various fields of medicine and surgery. The articles are worthy of careful reading, for they give in condensed form the more important facts concerning real progress. To review the literature on one subject alone during even a brief period is a task of considerable magnitude, if one takes into consideration the thousands of journals, pamphlets and books on medical subjects that are published within a year, and while those who have contributed to our symposium on the year's progress have probably not consulted all or even a large part of the literature that appeared during 1912, yet it is safe to say that, through the system of cross-references, indexes and reviews which are accessible, it is probable that no very important recognized progress in the various fields under consideration has escaped our contributors.

IN Governor Marshall's message to the present Indiana legislature the subject of fee division among physicians has been given official attention. Governor Marshall says: "In the interest of high professional training I recommend that the act creating the Board of Medical Registration and Examination be amended so as to require the board to revoke the license of a physician who splits his fee with an expert physician or surgeon."

This is a blow at the fee dividers or the commission evil, and it is a merited rebuke. It is unfortunate that a high sense of honor among members of the medical profession has not put an end to such a degrading practice as fee dividing, and though every right-thinking physician will welcome legislation which makes it a legally punishable offense to divide fees, yet it is a source of regret that the subject had to come in for attention at the hands of our governor with the recommendation that fee division be under legislative control.

At the next meeting of the Indiana State Board of Health, to be held the second Friday in January, action will be taken which will require the reporting of all venereal diseases. This is in line with the action of several boards of health, and in particular the New York State Board of Health. We especially commend the Indiana State Board of Health for taking this advanced stand, and there is no reason why gonorrhea and syphilis should not be reported in Indiana just as they are reported in New York and other places. This action is very largely for the pur-

pose of securing statistics concerning the venereal diseases, but it will have the further effect of gradually bringing about a solution of a vexatious problem, and one that led to the passage of a resolution at the last session of the Indiana State Medical Association, in which it was forcefully stated that the social evil will not be controlled until venereal diseases are placed in the list with other communicable diseases that are subject to quarantine or such other restrictions as are indicated in the interests of public health.

DR. H. O. WELLS, a self-styled "specialist" of Fort Wayne, who advertises extensively concerning his ability to treat and cure nearly all the diseases that flesh is heir to, recently received an unmerciful scoring from one of his patients, who in a letter published in the daily press asserts that he has suffered as a result of the blundering and inexperience of Dr. Wells which has left him a cripple for life.

We understand that the complaint has been the subject of editorial comment by one of the Chicago papers in which exception is taken to the ease with which quacks and charlatans can obtain a legal right to practice, and it is lamented that the laws do not offer suitable punishment. Our newspaper friends forget that it is they who are at fault, for without the publicity which newspaper advertising gives them the medical faker would go out of existence. The advertising quack thrives solely and alone as result of practice among deluded persons who are drawn to the fakers through misleading and untruthful advertising. If the advertising medical faker is to be put out of business, it will be necessary to put a stop to the privilege he now has advertising in the daily papers.

The Journal of the American Medical Association complains because the *Medical Record*, the *American Journal of Obstetrics*, the *Annals of Surgery*, and the *American Journal of the Medical Sciences* carry the advertising of worthless or fraudulent proprietary medicines. All of these journals are owned and controlled by large publishing houses whose commercial instincts predominate. Why does *The Journal of the American Medical Association* protest against the policy policy to demand that journals owned and concerning the rotten advertising carried by journals owned by the profession? Why is it not good policy to demand that journals owned and controlled by the several state medical associations shall clean up their advertising pages and set an

example for those publications that are controlled outside of the profession? The large weekly and monthly medical journals that come in for criticism by *The Journal of the American Medical Association* are just as clean as two-thirds of the journals that are owned and published by the medical profession. We believe that the individual members of the medical profession should protest against objectionable advertising in any medical journal. But when we are talking about this subject, let us not forget that most of the state journals should come in for severe condemnation.

WITH the payment of dues for the year 1913, some members are entering complaint to the effect that they have not received THE JOURNAL, and one man even goes so far as to say that he has never received a copy throughout the entire year, and seems quite indignant about it. We have stated in these columns again and again that if any member fails to receive his JOURNAL regularly, or even misses a number when others come regularly, he should notify us at once. Just as soon as subscriptions are reported by Secretary Combs the name of the subscriber is placed on the mailing-list, and from that time forth a JOURNAL is automatically addressed to him each month and placed in the mails. The subscriber may fail to receive his JOURNAL because of mis-carriage in the mails or wrong address. As an instance of the latter cause, one member wrote us eight months after he had changed his location and complained because he had not received his JOURNAL, when as a matter of fact he had never notified us of his change of address. We desire to emphasize the fact that we are quite willing as well as anxious to have our mailing-list correct and up to date, and if any member fails to receive his JOURNAL we hope that we will be notified without delay. If notified early we can usually furnish duplicate copies. Even in case of delay in publication, THE JOURNAL should be in the hands of the readers by the 25th of the month at the latest.

THERE is an old saying to the effect that if one lives in a glass house he cannot afford to throw stones. On the question of the support of the Council on Pharmacy and Chemistry of the A. M. A. we feel that we do not live in a glass house, and can therefore afford to throw stones at the fellows who are not supporting the Council.

We feel disposed to criticize severely the editors and managers of medical journals who put the question of dollars and cents above principle

and continue to aid all of those who would tear down everything that makes for progress in the medical profession. We refer to the question of advertising nostrums and worthless proprietaries which have either failed to receive the approval of the Council on Pharmacy and Chemistry of the A. M. A., or have been exposed as barefaced frauds.

We wonder why some of the state medical associations continue to publish journals which, while preaching one thing, are practicing another. They remind us of a revivalist who during the height of his success in saving souls was discovered in the questionable practice of robbing the pocketbooks of the saved souls. We howl about the iniquitous action of editors of the lay press in advertising medical fakes, but we have no right to preach on that subject until we clear our own skirts of practices that are just as questionable. In fact, what we need is an awakening of the consciences of a few of the editors and managers of medical journals, and particularly those journals that are owned and published by medical societies.

THE farmers and veterinarians of Indiana are preparing to ask the state legislature now in session to provide an appropriation for suppressing hog cholera, which during the last two years has destroyed many thousands of hogs with the consequent financial loss. No doubt our law-makers will listen to the appeal, for hogs represent good money, and it is seldom that the farmers' demands fail to receive consideration. This is entirely proper, and we have no fault to find because measures are adopted which tend to protect our resources, even though we are under the impression that the farmer gets more protection than any other class of people. But we are wondering how much consideration will be given any demands for the protection of babies who die for want of even half as much attention as is given to hogs. Babies may represent money, but the average legislator does not see it in that light, and in consequence scant consideration is given to any measure which aims to protect the baby from preventable diseases which may take its life. Heretofore our arguments before the legislature have been largely confined to sentimental or humanitarian logic. Why not get down to the commercial basis if that is the only one that appeals to our law makers? If we must, let us place human lives on a basis of dollars and cents and show what it costs in cold cash, directly and indirectly, to have communicable diseases among us, and what a financial loss it is to the community to

have an unnecessary death. It is dollars and cents which count in the argument for the appropriation of money from the state treasury, and it is on this basis that we may hope to have human lives given at least a part of the consideration that is given to hogs.

THE daily newspapers report that the opticians are asking for amendments to the optometry law, and their specific demands include divorcing optometry from medicine, the appointment of an optometry board composed entirely of optometrists (the board now has a medical man as one member of it) and defining the practice of optometry as the examination of refractive cases and the adjustment of glasses without the use of medicine. The optometrists further ask that violators of the optometry law be punishable by prison sentences as well as fines. The "joker" in the program consists in so amending the law that medical men will come under its provisions providing they attempt to adjust glasses.

It would be well for the medical profession to guard their interests or the opticians will quietly but none the less effectively place the medical profession in an embarrassing attitude if medical men are forced to comply with legal requirements doped out to them by their imitators. The present optometry law was slipped through the legislature at an unguarded moment and has been the stepping stone to a modified form of medical practice without the formality of medical training. The law gives optometrists more protection than they deserve, and any modification of the present law would be not only an imposition on the public but a slap at the medical profession which under no circumstances should be tolerated.

It would be well for every medical man in the state of Indiana to keep a close watch of pending legislation or otherwise some such action as that contemplated by the optometrists will escape attention and perhaps receive favorable consideration because the iniquitousness of the action is not pointed out.

EVERY doctor in Indiana requires supplies or equipment which must be purchased somewhere. THE JOURNAL carries the advertising of several firms that are able to supply every want of the physician and give the best quality, prompt service and right price. This advertising helps to pay the cost of publication of THE JOURNAL, and it enables us to publish a journal that is larger and better than would otherwise be possible. If the members of the Association are

interested in keeping up the present standard of *THE JOURNAL*, they will practice reciprocity and patronize *THE JOURNAL*'s advertisers instead of firms who have not the slightest interest in the medical profession of Indiana except to get everything they can and give as little in return as will be acceptable for the money paid out. *THE JOURNAL*'s advertisers have a right to expect patronage from the members of the Association, and we speak in their behalf because they are directly helping the medical profession of the state and therefore deserve more consideration than those who do not contribute to our progress. If *THE JOURNAL* advertisers were poor ones, or even if *THE JOURNAL* were not worthy of support, no advice as to how patronage should be bestowed would be offered. But notwithstanding the fact that there is an old saying that "A prophet is not without honor save in his own country," *THE JOURNAL* will stand comparison with any other journal of its kind and not come out second best. Its reading value depends on the unselfish labors of the editors, who have been willing to give their time and talents to making *THE JOURNAL* what it is, but the actual money expense of publication, which amounts to several thousand dollars a year, is largely met from the income received from advertising. It is, therefore, of the utmost importance that the advertising patronage should not only continue, but be increased if possible, and this is why we make an appeal to the members of the Association to help *THE JOURNAL* by patronizing the advertisers who are deserving of that consideration. Another thing which will go a long way toward helping *THE JOURNAL* is for you to mention *THE JOURNAL* when writing advertisers.

WITH the beginning of this new year it is time for us to think over what may and what can be done for the betterment of ourselves and those with whom we come in contact. To practice medicine properly requires all of one's talents and best efforts, but how many of us fail to get the most out of our lives for the benefit of ourselves and others? How many of us are there who are putting obstructions in the way of real progress, as well as in the way of that comfortable feeling which comes from a sense of helpfulness which we can and should give each other?

It long has been thought that medical men are their own worst enemies, in that they are too ready to tear down in the hope of building for themselves on the ruins, or in other words that they are too jealous of each other's prosperity and success. This may be true in a large measure,

and yet we believe that never in the history of medicine has there been such a unity of purpose and so much appreciation of each other's good qualities as exists at the present time. We may have our differences of opinion, but we put forth more effort to confine our discussions within the profession and do not take the public so much in our confidence until we have arrived at more definite conclusions concerning disputed points. Real progress in medicine depends on a united profession, and if there is any need of a resolution with the beginning of this year it is that we should put forth every effort to make ourselves helpful to one another in everything that goes to make the practice of medicine all that it should be for the benefit of ourselves and for the benefit of suffering humanity. Our ideals should be of the highest, and our spirit of tolerance and forbearance should be expanded to such an extent that we can better understand that our interests are mutual and that what is for the benefit of one is for the benefit of all.

Two years ago the state legislature, in misguided efforts at economy, cut down many of the appropriations for state institutions, but saw fit to be prodigal in other expenditures that might well have been omitted or at least materially reduced. As might be expected, the institutions have suffered from lack of funds and their efficiency and usefulness have been seriously impaired. The present legislature will be asked not only to repair the damage that has been made, but to provide for the future by increased appropriations. It is quite possible that partisan newspapers will put up a great cry about extravagance, and no doubt the plea will be listened to attentively by a certain percentage of the thoughtless representatives who do not properly analyze the situation. But the fact remains that larger appropriations must be made not only for the maintenance of our institutions, but for their growth and development to keep pace with the conditions which confront us in connection with an increasing population and advancing demands of a progressing civilization. Therefore it will be exceedingly unfortunate if the question of politics enters into the matter of appropriations for institutions that should be amply provided for by the legislature.

We are especially interested in the support of our educational institutions, and more particularly the medical department of the state university. This new department deserves and should have the encouragement and support of the state. There is absolutely no reason why Indiana

should not in time rank with the foremost states in its facilities for affording a broad and comprehensive medical education. The new medical school has accomplished a great work with the facilities afforded, but the time has come when the state must be liberal in its appropriations for the school or the credit which should come to Indiana through its educational institutions must of necessity fail to materialize. The medical school needs added laboratory and hospital facilities, and the equipment which goes with a progressive and up-to-date institution. Indiana cannot afford to be behind in the procession, and the only way in which our reputation can be sustained is through a recognition of the fact that progress and position cannot be obtained except through the support which the state is amply able to give.

We hope that every medical man in Indiana will be sufficiently interested in this subject to use his personal influence with legislators in the hope that this vital subject will be properly considered and acted on with the liberality that it deserves.

THE *Fort Wayne Sentinel* is one of many daily newspapers carrying a large amount of patent medicine and quack doctor advertising. This in itself would not seem strange were it not for the fact that the editor is recognized as being a very religious man and in many respects very exacting in his estimate of right and wrong. His newspaper will not carry the advertising of breweries, Sunday theaters or Sunday baseball, and the title page of his paper usually has printed across its face a bible quotation as an evidence of the religious fervor of the editor and owner. On Sundays he occasionally occupies the pulpit, and for many years he acted as superintendent of a Sunday school. He is recognized as a good man, and we believe that in general his intentions are to do the right thing under any and all circumstances. However, it is quite evident that he finds no difficulty in satisfying his conscience concerning the matter of promoting the most dangerous as well as the most dishonest of traffics; for he knows, as a result of government investigations and such reports as contained in the "Great American Fraud," by Samuel Hopkins Adams, to which his attention was called, that the majority of the medical advertisements carried in his paper are promoting a swindling game in which he is lending assistance. Sunday theaters and Sunday baseball, which the editor and owner of the *Fort Wayne Sentinel* will not aid in promoting, are innocent and harmless amusements compared to the effect of the patent medicine and quack doctor

evil, and a brewery which honestly advertises its product is an angel compared to the devils in human form who sell whiskey and poisons under the disguised name of medicine.

Sometimes a good man does wrong unintentionally, but when it is clearly proven to him that he is guilty of wrong, and he knows that many of his professional brethren have ceased the practice of which he is guilty because they know it is wrong, we fail to understand how conduct such as that of which we complain can be compatible with a life devoted to the following of religious precepts. Undoubtedly there are many editors other than the one mentioned who are members of churches and try to bear the reputation of doing as nearly right as they know how, but who close their eyes to certain evils if by paying attention thereto the editorial purse is to suffer. To further the interests of patent medicine manufacturers by carrying their advertising is to aid in swindling, and in the case of some patent medicines it is to aid in promoting intemperance, for Peruna, Hostetter's Bitters, and a number of other well advertised patent medicines have been proven to be nothing more than very cheap and very poor cocktails.

We commend to the editor of the *Fort Wayne Sentinel* and to all other editors, particularly those of religious leaning, a re-reading of the series of articles on the patent medicine fraud which have appeared in *Collier's Weekly*, *The Ladies' Home Journal* and the *Journal of the American Medical Association*. A copy of the "Great American Fraud," by Samuel Hopkins Adams, will be mailed to any editor who pleads ignorance of a knowledge concerning the fraudulent nature of a large number of patent medicine and quack doctor advertisements which regularly appear in many newspapers, the editors of which place dollars above conscience.

We particularly recommend to the Indiana editors the resolution passed at the last session of the Indiana State Medical Association approving the course of the Indianapolis *Sun* in refusing medical advertising of every description. What has been done by one Indiana paper can be done by another, and if some of our religious friends who are editors of newspapers can be made to feel the force of public opinion concerning the manner in which they are aiding in fraud and intemperance by carrying patent medicine and quack doctor advertising, it will not be long before a majority of the newspapers of Indiana will purge their columns of objectionable advertising of every description, and the editorial management will be placed on a higher plane than ever before.

DEATHS

DR. RICHARD ARMSTRONG, aged 40, Jeffersonville's only colored physician, died there recently.

DR. STONEWALL J. ALSMAN died at his home in Pleasantville, December 12, following a long illness from tuberculosis.

DR. PHILIP McNAB, contract surgeon in the U. S. Army during the Civil War, died at his country home near Mooresville, November 29, from pneumonia, aged 79.

DR. NATHAN G. REIFF, a graduate of Hahnemann Medical College, Philadelphia, 1883, died at his home in Albion, November 26, from acute disease of the throat, aged 53.

DR. WILLIAM H. HAYNES, Aurora, died at the home of his brother-in-law in Hogan Township recently. Dr. Haynes was a member of the local board of pension examiners.

DR. JOHN M. MARINE, aged 76, died at his home in Etna Green, December 18, following an attack of heart disease. He had practiced medicine in Etna Green for twenty-five years.

DR. WILLIS A. DORMAN, a graduate of the Missouri Medical College in 1880; for many years a practitioner of Lebanon, Ind., died at his home in Indianapolis, November 10, from nephritis, aged 61.

DR. TOLIVER WERTZ, formerly of Princeton, who gave up his practice there recently on account of ill health, died at the home of his daughter in Altoona, Pa., December 8, aged 64 years.

DR. WILLARD P. BRICKLEY, a graduate of the American Medical College, Cincinnati, in 1856; one of the founders of the Physio-Medical College of Indiana, Indianapolis; a resident of Madison County, Indiana, for seventy years, died at his home in Anderson, November 10, aged 89.

DR. JAMES A. COMSTOCK, aged 67, died December 9 following a surgical operation at an Indianapolis hospital. He was a member of the Hancock County Board of Pension Examiners. Dr. Comstock was born in 1843. He began the practice of medicine in Shelby County in 1867, coming to Greenfield in 1889.

DR. DOUGLAS A. SWARTZ, a graduate of the Medical College of Ohio, Cincinnati, 1888; formerly of Canton, Ohio; a well-known practitioner of South Whitley, died at the Hope Hospital, Fort Wayne, December 10, from meningitis, due to spread of infection from abscess of the accessory sinuses, aged 53.

DR. EDWARD R. GORDON, Hobart, a member of the Lake County Medical Society, died at his home, December 19, from cirrhosis of the liver, aged 32 years.

Dr. Gordon graduated from the Medical College of Indiana in 1903, and had practiced in Hobart since that date. In 1908 he was elected coroner of Lake County, serving two years.

DR. J. A. AXLINE died at his home in Noblesville, December 9, following a long illness from cancer of the stomach. Dr. Axline had been in poor health for some time, being compelled to give up his practice a few weeks ago, when he became confined to bed.

Dr. Axline was born in Knox County, Ohio, March 5, 1847. He received his early education in a Quaker academy in Martinsville, Ohio, attended the Indiana Medical College, and later graduated from the Medical College of Ohio in 1873. He began the practice of medicine at Raleigh, Rush County, where he remained for eighteen years, moving to Noblesville, where for twenty-one years he was one of the city's leading practitioners.

Dr. Axline was a member of the Hamilton County Medical Society, the Indiana State Medical Association and the American Medical Association.

DR. JOHN B. SHULTZ died December 7 at his home in Logansport of blood-poisoning, after an illness of several weeks, aged 74 years. Hope of his recovery was abandoned from the beginning of the attack, as his age made amputation of the affected limb too hazardous to be undertaken.

Dr. Shultz was born in Carroll County, Sept. 22, 1839, graduated from the Eclectic Medical

College of Cincinnati in 1860, and came to Logansport the same year to engage in the practice of medicine. From 1870 until 1874 Dr. Shultz was treasurer of Cass County, having served two terms. He was immediately afterward elected mayor of the city.

The Cass County Medical Society, of which Dr. Shultz was a member, adopted the following resolutions:

"God in His wisdom has taken from us our brother physician, Dr. J. B. Shultz.

"While we bow in submission to His inscrutable workings, yet we know in his death the medical profession has met with a great loss and his taking off will be keenly felt by his brother practitioners.

"As county treasurer, mayor of the city and as a physician he did his duty as he saw it.

"The night was never too dark, the mud too deep nor the storm too fierce for Dr. Shultz to visit his patients, whether rich or poor.

"Sociable in his nature, affable in his manner, accommodating in his work, pleasant and inspiring in the sick room, Dr. Shultz will be greatly missed by the profession, by his patients and the community in which he has practiced for over a half century.

"We extend to his family and friends our truest sympathy in this inevitable yet trying ordeal.

"That we recommend that these resolutions be spread on the records of the society, given to the family and published in the daily papers."

NEWS, NOTES AND COMMENTS

DR. J. E. HIATT, Newcastle, has been elected coroner of Henry County.

DR. CHARLES A. UNDERWOOD has resigned as health officer of Danville.

DR. JAMES V. NELSON and wife of Logansport sailed for Europe, November 29.

DR. ROY V. HANNELL, Lafayette, has been elected coroner of Tippecanoe County.

DR. HARRY M. LAMBERSON, Connersville, has been elected coroner of Fayette County, and Dr. O. P. M. Ford, a member of the Board of Health of Connersville.

NEGOTIATIONS are being carried on by the Fort Wayne Anti-Tuberculosis Association for the purchase of a tract of land of three or four acres on which to establish a tent colony for consumptives. Dr. E. A. Crull is in charge of the enterprise.

At a recent meeting of the Elkhart Academy of Medicine, the following officers were elected: president, F. A. Benham; vice-president, W. A. Stauffer; secretary-treasurer, Hannah O. Staufft. A movement was started for the purchase of a medical library to cost approximately \$400.

DR. R. C. MACKEY, health officer of Hobart, on account of the prevalence of scarlet fever, ordered the public and parochial schools and theaters of the town closed for a week and requested the suspension of worship at all public places and Sunday schools, December 1.

THE year of 1912 has seen an increase of 111 persons sent to public institutions suffering from epilepsy according to a recent statement from the board of state charities. A total of 957 inmates of public institutions in Indiana now are afflicted with epilepsy, the report says.

THE State Board of Medical Registration and Examination of Indiana recently entered into an agreement establishing reciprocity with Pennsylvania for licensing practicing physicians. Indiana was one of the first states that considered reciprocity with other states and Pennsylvania one of the latest.

THE Henry County Association for the Study and Prevention of Tuberculosis, a branch of the state organization, was organized at Newcastle, November 18, with the assistance of Dr. Henry Moore of Indianapolis, state head of the organization. Dr. David S. Wiggins, Newcastle, was elected president.

A MEETING for the organization of a public health nursing association was held in Indianapolis, recently. Alexander G. Cravens acted as chairman, and the members of the committee to perfect this organization included a representative from each of the large social welfare organizations of the city.

FOLLOWING an address by Dr. J. N. Hurty, secretary of the State Board of Health, the Indianapolis Commercial Club, under auspices of the ways and means committee, recently adopted a resolution favoring the establishment of a state commission to study the extent of preventable disease in Indiana and to make a report with recommendations to the general assembly.

TO STAMP out tuberculosis in Indiana in less than a decade is the intent of a far-reaching law that will be asked from the coming legislature by the committee on tuberculosis of the Indiana State Medical Association. The law will propose in substance that each county shall provide a special place for the care of chronic victims of tuberculosis to prevent them from infecting others.

PUBLIC Health Week was held in Frankfort, beginning December 10. A health exhibit was made in the Carnegie Library, and lectures illustrated by moving pictures were given at frequent intervals. The entire proceedings were in charge of Dr. C. A. Zinn, county health officer, Dr. Benson A. Ruddell, health officer of Frankfort, and the county and city superintendents of schools.

H. E. BARNARD, state food and drug commissioner, has begun a campaign of education among health boards in Indiana seeking to provide for the installation of a system of certificates, to be granted owners of food-handling establishments, when their establishments have been pronounced "excellent" under the provisions of the state's pure food and drug act. Health officials at Fort Wayne have instituted such a system.

THE annual meeting of the Greene County Medical Society was held in Linton, December 12. The following physicians were on the program to present papers: A. A. Thomas, "Anesthesia;" F. A. VanSandt, "Neurasthenia;" W. A. Gekler, Rockville Tuberculosis Hospital, "The Treatment of Pulmonary Tuberculosis with Artificial Pneumothorax;" Joseph Rilus Eastman, Indianapolis, "Peritoneal Anomalies," and H. K. Bonn, Indianapolis, "Diagnosis of Renal Disease."

ON May 30, 1912, the small son (age 11 months) of Rolland Clark and wife of Clarksburg, swallowed a pin, which lodged in his throat.

All attempts to dislodge it were futile and the child was unable to utter a sound. Recently the boy fell down a flight of stairs. He choked and his mother fed him a raw egg. In a short time the little fellow vomited the egg, and the pin came with it, heavily coated. The child can now talk and cry normally again.

THE Board of Health is privileged to move its Pasteur institute, wherein patients who have been exposed to rabies may receive free treatment from the state, outside the state house to any location desirable, according to an opinion given to Dr. J. N. Hurty, by Attorney-General Honan. The request for an opinion was made to get authority for removing the institution to other quarters, so that the congestion in the state house during the legislature will be relieved.

A BILL to provide sanitary surroundings in practically all the public buildings will be introduced in the legislature under the auspices of the Travelers' Protective Association, but will have the stamp of approval of the State Board of Health. Its provisions are regarded by members of the board as one of the most advanced steps in public hygiene that have ever been attempted in Indiana.

Section 1 of the bill provides that it is unlawful for any proprietor of public buildings to maintain insanitary or unhealthful conditions therein. Section 2 defines the insanitary or unhealthful condition as that tending toward improper lighting or ventilation, improper disposal of slops, garbage, sewage or other waste, improper handling of food, allowing any employe to be unclean in person or clothing, or to employ any one suffering with social diseases, tuberculosis or other contagious or skin diseases. Section 3 gives the State Board of Health power to enforce the provisions of the act, and Section 4 gives the proprietor of property which is declared insanitary or unhealthful the right to appeal from the decision of county or local officials to the State Board of Health. Section 5 gives local and state health officials power to abate any such insanitary or unhealthful conditions and charge the cost to the convicted proprietor. Another section provides a penalty of not to exceed \$200 for a violation of the act's provisions, to which may be added imprisonment for not less than one month nor more than six months. An additional fine of \$5 for each day that the insanitary conditions are allowed to continue is provided for.

THE annual report of the State Board of Health for 1912, urges the following legislation:

1. Amendment to health laws providing for a kind of "civil service" county health officer, to devote his entire time to the work and to be paid a living wage.

2. Removal of the pathological laboratories of the State Board of Health from the state house and an appropriation of \$5,000 for enlarging the scope of their work.

3. Empowering the State Board of Health to pass on all schoolhouse plans and give final approval or disapproval under the terms and provisions of the sanitary schoolhouse law of 1911.

4. The establishment of a department of sanitary engineering in conjunction with the State Board to handle all problems such as those suggested in sanitary schoolhouse law, and also to handle problems of sewage, lighting and ventilation in public buildings, of protection from occupational diseases and other similar problems.

5. Enlargement of the capacity of the state's free Pasteur institute, where persons are treated free of charge to prevent rabies.

6. Enlargement of the executive offices of the Board of Health at the state house to provide for better housing for the statistical records of the board.

7. Such cooperation with every other state department and the State Board of Health that occupational diseases, bad housing, venereal diseases, trafficking in habit-forming and health destroying drugs, the care of unfortunates in either state or private institutions, may be thoroughly dealt with.

8. Bolstering up of law relating to the control and eradication of cattle tuberculosis, giving the state veterinarian specific powers to deal with situations, which often are responsible for the rapid spread of tuberculosis and other diseases. "Ultimately the state veterinarian's department must be a department of the State Board of Health."

9. Appropriation of at least \$5,000 for enforcing provisions of 1911 weights and measures law.

10. Provisions for a special fund to cover cost of analyses of coal, destined to be used for state institutions, in the state's pathological laboratory.

11. A law, restricting to physician or dentist, who finds in his practice a legitimate use for them, cocaine and other habit-forming drugs.

12. Legislation to prohibit fraudulent advertisement and to require that the manufacturers of all preparations intended to be used for cure or alleviation of diseases of man or other animals must be so regulated that those who prepare the compounds must have passed a right examination to determine their fitness for such compounding.

CORRESPONDENCE

STATE BOARD OF ALIENISTS

MICHIGAN CITY, IND., Dec. 16, 1912.

To the Editor:—In two papers delivered before the Laporte County Medical Society, September, 1911, on "The Criminal," and "The Diagnosis of Insanity," May, 1912, I called attention to the fact that our state needs a board of mental experts to determine the mental status of prisoners who are brought to trial in our courts, more especially those who are to be tried for such crimes as homicide, and who have entered the plea of insanity as a defense, or those persons whose crimes are merely symptomatic expressions of mental disease, which the court, unless instructed as to their mental conditions will send to penal institutions to be disgraced just for being sick.

Our jury system is bristling with many faults, to say the least. We are all aware that it is easy to escape jury duty on the grounds of prejudice without much shock to the conscience, and it is also common knowledge that the average jurymen is not always weighed down with a great sense of obligation in relation to the solemn duty that is his to perform, or that he is not mentally equipped to decide the delicate problems that are brought before him.

I regret to say that our best citizens do not always form the average jury. Our faulty jury system is open to correction in that the average juror is not qualified to decide the relative value of medical testimony supplied in courts by medical experts. Our method of introducing expert testimony is seriously at fault, for the medical men are pitted one against another, and thereby are made joint parties to the case in hand. This condition is largely responsible for the disfavor in which the medical witness is now held, as well as for the prevalent idea that experts can be secured for the price.

Another problem has been created by the opening of the Indiana Hospital for Insane Criminals. Men may now be sent to this institution by lay juries alone, or by those juries who have listened to wordy battles of medical terms which they do not appreciate, between the opposing counsel and the medical men employed to testify. It is obvious that they cannot render a verdict intelligently or safely commit a man to an insane hospital for treatment.

Under the present law concerning the commitment of men to the Indiana Hospital for Insane Criminals by our courts it is very evident that unscrupulous lawyers will introduce the plea of

insanity in the case of clients who have committed murder, to secure their commitment to said hospital with the view of securing their release after a year or so of confinement, by demanding statements from those in authority as to whether the said person is of sound or unsound mind.

The ruse of sending a sane man to this hospital through the contrivance of some attorney, and then securing his release on the grounds that he has recovered, would render the Indiana Hospital for Insane Criminals a huge joke, and a haven of refuge for criminals convicted of murder and other serious offenses.

I believe it to be the duty of the medical fraternity to secure the passage of such acts as will permit the appointment of the much needed board of alienists, whose function it will be to further the ends of justice and save the heavy drain on the public pocketbook, due to court procedure in trying insane men for crimes committed, for 5 per cent. of men received at the Indiana State Prison are insane at the time of admission. This board would also render it extremely difficult for the successful working of the now-overworked insanity dodge.

Fraternally yours,
PAUL E. BOWERS, M.D.,
Physician-in-charge Indiana
Hospital for Insane Criminals.

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

REPORT OF SECRETARY FOR THE YEAR 1912

The secretary recently read the minutes of the Association for every annual session since 1874, comparing, among other things, the secretaries' reports. The most astonishing fact revealed was that these secretarial reports were not made for the fiscal year, but were made at the time of the annual session. This proved a serious handicap when the attempt was made to record the total membership for each year. For example, the secretary's report for 1911 read at the Indianapolis session in October stated that the membership was 2,342, but on December 31 the membership totaled 2,470, although this item never appeared officially. This same disadvantage is even more noticeable in respect to the treasurer's report, which records receipts of parts of two years' dues in the same report. For this reason there will appear hereafter a report covering the entire fiscal year. In this connection it might be urged that officers elected at the annual session serve for the ensuing fiscal year, so that with a change of secretary or treasurer there will be no confusion in the reports. This would also allow the president

time to perfect his roster of committeemen for publication along with the other officers in the January JOURNAL. Moreover it would be in accordance with the scheme of uniformity promulgated by the American Medical Association.

The year ending December 31, 1912, witnessed the successful launching of the Medical Defense feature and it was doubtless owing to this inducement that the membership reached 2,491, a gain of 21 over the last year. The membership of the Association by quinquenniums has been as follows: 1875, 383; 1880, 1,023; 1885, 1,214; 1890, 1,155; 1895, 1,360; 1900, 1,616; 1905, 2,165, a large gain due to the reorganization. The fastigium of 2,667 was reached in 1909, but this declined the next year to 2,577. The retrogression once started was augmented the next year by increasing the dues 100 per cent., which further reduced the membership to 2,470. It is therefore gratifying to note that the faithful efforts of the county secretaries has finally checked the decrease, and with this encouragement they should do still better in 1913. In an early number of the JOURNAL there will be a tabulation of the activities of each county society for the year, which will supplement this report.

| | |
|------------------------|-------|
| Membership 1911 | 2,470 |
| Delinquents | 200 |
| Died | 19 |
| Expelled | 1 |
| Resigned | 9 |
| Removed | 32 |
| New members | 282 |
| Membership, 1912 | 2,491 |

CHARLES N. COMBS, Secretary.

REPORT OF TREASURER

David W. Stevenson, Treasurer, in account with the Indiana State Medical Association.

DEBIT

| | |
|---|------------|
| a To cash on hand after payment of all outstanding bills for 1911..... | \$1,872.19 |
| b To cash from Secretary, dues collected for the year 1912—2,480 members..... | 4,960.00 |
| Grand total | \$6,832.19 |

CREDIT

| | |
|--|------------|
| c. By cash to Secretary, Honorarium, and incidental expenses | \$ 366.85 |
| d. By cash to F. C. Heath..... | 9.26 |
| e. By cash to Councilors (expense accounts) . | 89.94 |
| f. By cash to Stenographers..... | 151.00 |
| g. By cash to Printers..... | 69.00 |
| h. By cash to Committee on Necrology..... | 10.00 |
| i. By cash 2,480 subscriptions to THE JOURNAL | 1,860.00 |
| j. By cash set aside for Medical Defense..... | 1,860.00 |
| Total | \$4,416.05 |
| To balance on hand Jan. 1, 1913..... | 2,416.14 |
| Grand total | \$6,832.19 |

Respectfully submitted,
DAVID W. STEVENSON,
Treasurer.

Jan. 1, 1913.

BLACKFORD COUNTY

The annual meeting of the Blackford County Medical Society was held in Hartford City, December 27. The following officers were elected for 1913: president, George H. Dando, Montpelier; vice-president, W. A. Hollis, Hartford City; secretary-treasurer, M. M. Clapper, Hartford City; censors, F. M. Reynolds, Montpelier, and J. C. Kirkpatrick, Roll.

The following physicians were admitted to membership in the society: Drs. John Sellers, C. F. Sexauer, R. E. DeWees and Fernande Hacat, all of Hartford City.

The Blackford County Medical Society lost three members during 1912, one by death and two by removal to other states. Dr. C. Q. Shull died at his home in Montpelier after a protracted illness. Dr. Shull was the oldest member of the society, dying in his eighty-second year. Dr. J. H. D. Lorimor moved to California and Dr. Emshwiller to Missouri. Five new members were added to the society during the year.

Adjourned. M. M. CLAPPER, Secretary.

CARROLL COUNTY

The Carroll County Medical Society met at Delphi, December 13. Election of officers resulted as follows: president, C. C. Hickman; vice-president, C. C. Crampton; secretary-treasurer, W. R. Quick; committee on scientific work, C. C. Crampton, O. G. Brubaker and B. W. Egan.

Adjourned. W. R. QUICK, Secretary.

CLAY COUNTY

The Clay County Medical Society met December 5. Drs. Palm and Smith presented papers.

Election of officers resulted as follows: president, T. M. Weaver, Cory; vice-president, L. L. Williams; secretary-treasurer, Harry Elliott; censors, Drs. Palm, Rentschler and Smith; county historian, Dr. Thornton. Dr. Thornton was chosen delegate to the state association, and Dr. Smith, alternate. Dr. Finley was chosen delegate to the district medical society, and Dr. Pierce, alternate.

Adjourned. H. H. ELLIOTT, Secretary.

DELAWARE COUNTY**Meeting of December 6**

The Delaware County Medical Society met in regular session in the lecture room or the public library, Muncie, December 6.

Election of officers for 1913 resulted as follows: president, W. W. Wadsworth; vice-president, D. M. Green; secretary-treasurer, H. D. Fair; censor, U. G. Poland, all of Muncie.

The society voted to have twelve meetings per year instead of nine as in the past.

Dr. A. E. Vinton read a paper on "Adenoids and Tonsils." In introduction Dr. Vinton said that it was the purpose of the paper to try and bring about a more conservative consideration of the care of tonsil cases, whether to remove the tonsils at all, to remove a part of the tonsillar tissue, or to enucleate. Not sure of the real function of the tonsil. It appears at about the fourth month of fetal life and continues to functionate till about puberty. Its origin is from the

brachial pouch; and is it not conceivable that, inasmuch as the thymus originates from the same source and the latter is the first organ to manufacture leukocytes in embryonic life which ceases to functionate at birth, the tonsil may take a similar part after birth, as it does not atrophy till puberty? Dr. Vinton does not disturb the tonsil of the young under 12 years of age for mere enlargement without history of recurring sore throat which would indicate that the tissue is diseased. In other words he looks on the tonsils as a possible necessary organ that should be preserved if possible.

A great many of the enlarged tonsils in children under 12 are due to dentition and when that is completed the tonsil will reduce in size and be normal in its function. The author believes a serious risk is taken by any physician who attempts to remove both adenoids and tonsils at one sitting. A patient may collapse from the double operation when either alone could be done with impunity.

In the discussion, Dr. C. E. Miller said that tonsillectomy is a safer operation than tonsillotomy, insofar as hemorrhage is concerned. Does not hesitate to remove adenoids and tonsils at the same time. The danger of giving a second anesthetic is usually greater than the double operation. The paper was also discussed by Drs. Geo. R. Green, W. A. Spurgeon, G. W. H. Kemper and O. E. Spurgeon.

Adjourned.

H. D. FAIR.

Meeting of January 3

The regular meeting of the Delaware County Medical Society was held in the lecture room of the Muncie public library, Friday afternoon, January 3, with President W. W. Wadsworth, M.D., presiding. After the usual business routine the society was addressed by Drs. W. J. Molloy and H. A. Cowing, our city and county Health Officers, both of whom attended the recent convention of the International Congress of Hygiene and Demography, held at Washington, D. C. Dr. Molloy's address dealt principally with the literary phases of the Congress, and Dr. Cowing told of the clinical and exhibitional features, having for our inspection a bundle of pamphlets and booklets issued by the host of concerns having various exhibits at the convention.

Dr. Molloy said in part: The Fifteenth International Congress of Hygiene and Demography, held at Washington in September, was the first convention of the Congress ever held in this country. The Congress was purely educational and represented a vast amount of research along the lines of prevention of disease, purity of food, importance of pure water, destruction of disease carrying insects, proper disposal of sewage, care of school children, and individual responsibility in every branch of human activity. Over six hundred papers were read, every author being an expert. The convention brought together some of the foremost men of the civilized world, in the field of disease prevention. The matter considered was grouped under the following main heads:

School Hygiene
Oral Hygiene
Hygiene of Exercise
Industrial Hygiene
Military and Naval
Hygiene
Sex Hygiene
Mental Hygiene

Communicable Diseases
and Hospitals
Sewage and Water Supplies
Housing
Vital Statistics
State and Municipal
Hygiene

These heads were again sub-divided into many relative topics.

Dr. Petterson of Stockholm, who succeeded in isolating the germ producing poliomyelitis, read a paper on this disease. Dr. Landsteiner of Austria, led in the discussion. The disease has been transmitted by the biting stable fly, according to Dr. Rosenau of Harvard.

Dr. Novy (Univ. of Mich.) announced the discovery of a microorganism which is fatal to rats.

Drs. Goldberger and Anderson, in their study of measles, demonstrated that the disease is spread by nasal secretions and not by epidermal scales. They also proved the transmission of typhus fever by the body louse.

Dr. Ashford, of the U. S. Army, stated that the eradication of hookworm in Porto Rico has doubled the efficiency of the 700,000 people who were infected when the campaign was inaugurated.

Dr. Williams, Research Department of New York Department of Health, announced trachoma due to a bacillus. This disease is common in emigrants and in some Indian tribes of the far west.

Testimony was produced showing the value of typhoid fever vaccination in the U. S. Army, R. R. construction camps and hospitals.

Sir Thomas Olliver spoke on occupational diseases, the importance of which is becoming more and more apparent.

Dr. Webber of Germany, spoke on National Health, and Dr. Bernard argued that the general regulation of the handlers of foodstuffs should be under sanitary inspectors.

Dr. Lee holds fatigue responsible for the inception of much disease and many accidents.

Dr. Jaques Bertillon said alcohol is a contributory cause of tuberculosis, Bright's disease, cancer and insanity, and our own Dr. Hurty created quite a sensation with his address on Rural Hygiene.

Dr. Cowing, in presenting his version of the Congress, told of the different exhibits arranged by such concerns as the insurance companies, large manufacturing plants (such as the National Cash Register), railroad companies, state and federal governments, etc., etc. California, Louisiana and Maryland sent what they called health cars. These exhibits created a wide interest and the rooms were continually thronged with people of all classes and conditions.

In closing, Dr. Cowing made a strong plea in behalf of the growing child and the school pupils. He advocated the use of plain wholesome food, pure in quality and carefully and properly prepared.

The addresses of Drs. Molloy and Cowing were ably discussed by Drs. Kemper, Fisher, Spurgeon and Ball. The first three gentlemen claimed that the organized liquor traffic and the consumption of strong drink are a great factor in the production of disease and poorly nourished children. Dr. C. A. Ball believes that still back of the consumption of strong drink is the dense ignorance of the masses. If people were better informed along the lines relative to the bettering of conditions and the advancement of the race, the consumption of alcoholic liquors would be lessened.

The report of the secretary-treasurer shows a balance of \$74 in the treasury Jan. 1, 1913.

Adjourned.

H. D. FAIR, Secretary.

DUBOIS COUNTY

The DuBois County Medical Society met in the court room at Jasper, December 17.

Election of officers resulted as follows: president, Louis Lukemeyer, Huntingburg; vice-president, M. M. Parsons, Schnellville; secretary-treasurer, E. A. Sturm, Jasper.

The application of Dr. S. L. McKinney of Huntingburg was presented for the action of the society.

In the absence of those who were to have given the regular program, Drs. Louis Lukemeyer and J. P. Salb discussed atypical cases of typhoid fever, and all joined in the general discussion.

Attention was called to the fact that the 1913 dues must be paid before January 1, 1913, if members are to remain in good standing in the state association.

The next meeting will be held at Huntingburg the third Tuesday in January. The program will be in charge of Drs. J. P. Salb, E. Steinkamp and E. A. Lukemeyer.

Visiting physicians and doctors from neighboring counties are at all time welcome to attend the meetings of the society.

Adjourned.

EUGENE A. STURM, Secretary.

ELKHART COUNTY MEDICAL ASSOCIATION

Meeting of September 5

The Elkhart County Medical Association met in Goshen September 5, Dr. M. K. Kreider in the chair.

Dr. David Ross of Indianapolis presented a paper, "Hernia in the Infant," which was thoroughly discussed by the members.

There were twenty-four members present.

E. M. HOOVER, Secretary.

Meeting of October 3

The Elkhart County Medical Association met in Nappanee.

Upon motion the president appointed Drs. J. C. Fleming, J. A. Work, Sr., and C. W. Haywood as committee to draft resolutions with reference to the demise of Dr. W. A. Neal.

Dr. J. A. Work, Jr., presented a paper, "Clinical Symptoms and Diagnosis of Gall-Stones." He said in part:

Everything in medical and surgical practice to-day tends toward early diagnosis. To facilitate early diagnosis of gall-stone disease, the latter may be divided into four stages, a distinction defined by Graham and Guthrie. During the first stage or in the first class, sudden but mild dyspeptic attacks are typical of early gall-bladder involvement. The second class is characterized by more or less prolonged attacks of dull pain in some part of the liver area between which periods of pain the patient is in apparently perfect health. The third stage is that in which a positive diagnosis of gall-stones is made from character and especially severity of the colic. The fourth is that of chronic gall-bladder trouble with any one of several complications.

Hyperchlorhydria, pylorospasm and inhibited motility are frequent concomitants of gall-stones. McCarthy, upon investigation, concludes that gall-bladder, liver, duodenum, pancreas and stomach are closely related and should be considered a gastro-duodeno-hepatico-pancreatic physiologic system.

Pregnancy predisposes to gall-stone disease. Jaundice, rigors, vertigo, syncope and fever are prominent symptoms. The finding of stones in the stools, the whitish or prohibitive odor and mahogany colored urine are diagnostic. A previous history of typhoid fever is important.

The average age of 40, absence of childhood attacks, no relation to ingestion of food, mildness of digestive disturbance, sudden appearance of pain and sudden relief, and the characteristic radiations distinguish gall-stone from peptic ulcer and the dyspeptic type of chronic appendicitis.

Conclusion: (1) Gall-stones may be diagnosed early; (2) Stomach symptoms and stomach analysis are of compelling importance; (3) Jaundice is not an infallible symptom; and (4) a broad scope and careful study of individual cases are absolutely necessary to correct diagnosis.

Dr. G. W. Spohn, our delegate to the State Association, was instructed to inquire into the status of medical defense as offered by the Indiana State Medical Association.

There were twenty-two members present.

E. M. HOOVER, Secretary.

Meeting of November 7

The Association met in Elkhart November 7.

A number of the members reported cases of Strychnine poisoning.

The program consisted of a "Symposium on Blood-pressure." Papers were presented by G. W. Spohn, A. C. Yoder, F. N. Dewey, I. J. Becknell, C. W. Fink, C. W. Haywood, G. W. Kirby and E. M. Hoover.

The following resolution was presented and adopted:

Dr. W. A. Neal departed this life September 25, 1912, after a faithful service of over half a century, as a practitioner of medicine.

We, the Elkhart County Medical Association, of which he was a charter member, and which he served many years as secretary, deem it fitting that we should pause for a moment to express our appreciation of his virtues, to render a tribute of respect to his memory, and to extend our sincere sympathy to his bereaved family.

Resolved, That these resolutions be spread upon the records of the society, and a copy thereof be transmitted to the family of the deceased.

Signed: JAS. A. WORK, SR.,
C. W. HAYWOOD,
J. C. FLEMING.

There were twenty-one members present.

E. M. HOOVER, Secretary.

Meeting of December 5

The Elkhart County Medical Association met in the Elkhart Library.

Members present numbered thirty-two.

The election of officers for the ensuing year resulted as follows:

President, B. F. Kuhn.

Vice-President, W. A. Price.

Secretary-Treasurer, J. A. Work, Jr.

Censor, D. L. Miller.

Dr. A. J. Ochsner, Chicago, presented the subject, "Exophthalmic Goiter," paying particular attention to the indications for and results in goiter operations.

E. M. HOOVER, Secretary.

Meeting of Jan. 2, 1913

Regular session called to order by President Kuhn, at 8 p. m., in Dr. H. W. Ely's office, Goshen, 24 members present. Minutes of previous meeting read and approved. Financial report made by secretary.

Report of committee on annual meeting made by Dr. J. C. Fleming, chairman. Motion carried that society ask all physicians in attendance on day of annual meeting to be guests of society at dinner. The menu was selected.

Dr. A. C. Yoder, Goshen, presented a case of wrist dislocation. The subluxation, which occurred three years ago, has become permanent and though fibrous and cartilaginous connection between lower end of the ulna and other bones of wrist has been lost, patient retains very creditable use of joint.

Dr. H. W. Ely, Goshen, in introducing the subject of "Nystagmus" discussed first the anatomy of the semicircular canals. He dwelt especially upon the relative movements of the perilymph and endolymph. Vestibular nystagmus, in which he is particularly interested, may easily be distinguished from eye nystagmus. Of vestibular there are three forms: horizontal, rotatory, and vertical. It has a quick and a slow component. There are caloric, galvanic, and turning methods of eliciting the condition. The vestibular symptoms are dizziness, disturbances of equilibrium and vomiting. Sea sickness illustrates vestibular troubles. Dr. Ely illustrated physiological nystagmus by putting a subject on rotary chair and by turning him ten times to right with eyes closed. The quick movement was to the right and the slow to the left. Turning subject ten times to left gave reverse result. The question arises, of what practical use is a knowledge of vestibular nystagmus? First, to determine the presence of labyrinthitis or of a destroyed labyrinth. Either the turning or the caloric tests are employed. Second, to diagnose presence of a fistula of one of the semicircular canals. This is determined by the use of an air bag and to know the presence of a fistula is an important guide in the performance of a big or a small operation. Third, serous meningitis—known also as Barany's syndrome—is recognized by certain reactions ascribable to the semicircular canals. Fourth, in a case of cerebellar abscess there is a spontaneous nystagmus which goes to the diseased side. This is reliable in 95 per cent. of the cases. Fifth, brain tumors are diagnosed by nystagmus tests. Sixth, it aids in determining cause of vertigo.

Dr. W. B. Kreider, Goshen: Vestibular nystagmus is a new subject. His study has been more of the ocular type, of which there are two, congenital and symptomatic. More than 70 per cent. of cases of disease of visual centers in disseminate sclerosis have nystagmus. In occupational, for example miner's nystagmus, motor apparatus of eye is changed.

The second paper on "Protein Sensitization," by Dr. F. M. Freeman, Goshen, was an exhaustive treatise. Jenner first recognized the principle in connection with his vaccination against small-pox. Noted the work of Theobald Smith, Pfeiffer, Vaughan and others on animals. Gave methods of sensitizing animals against a foreign proteid, symptoms of anaphylactic shock, periods of maximum sensitization in different animals and autopsy findings. Anaphylaxis is a chemical reaction, not cellular. Vaughan describes two substances, one causes the toxic symptoms and one sensitizes. Sensitiveness diminishes as dose is increased. The symptoms

following inoculation are not all due to microorganisms and their products but also to chemical reaction of protective bodies, viz.: proteolytic ferment. Organs producing internal secretion are important protective agencies. Rules of Serum Therapy. Factors: susceptibility of individual, difference in horses from whom serum is obtained, the age of serum and the conditions under which it has been kept. Symptoms following mild and overdosage. Individuals subject to urticaria, asthma, hay-fever and to odor of horses should receive a very small initial dose.

Dr. B. F. Kuhn, Elkhart: As a temporary diet in the case of a baby with gastro-enteritis two years ago, he had the parents give some sweetened and diluted egg albumin in place of milk. Wheals formed where the albumin spilled over the face and the baby showed such acute and severe symptoms that it seemed it would die. Recovered. Has used the same preparation in many other cases with no ill effects.

Dr. F. M. Freeman, Goshen: Case discussed by Dr. Kuhn very interesting. Scores of people in Elkhart County have hypersensitiveness to horse serum. If we are familiar with the symptoms, we may the better regulate the dosage. In man it is rare to get death from anaphylaxis.

Third paper: Dr. C. W. Haywood, Elkhart: "A Skiagraphic Study of Epiphyseal Ossification and Union."

Knowledge of location of various epiphyses together with time of beginning ossification and ossific union important, because many minor injuries about joints are accompanied by separation of epiphyses and because persistent separation in very young, with premature ossification may result in arrest of growth of limb at this points.

Ossification begins early in fetal life, in the clavicle as early as the fourth week. Radiograph of fetus at fourteenth week shows one hundred sixty-four points of ossification. In fetal skeleton, long bones are cartilaginous and cranial bones are membranous, and there follows two corresponding forms of ossification. Union of epiphyses to shaft is in reverse order to that of ossification, and is regulated by direction of nutrient artery of bone. Radiographs were exhibited, showing ossification and epiphyseal growth at different ages and their ultimate union with shaft.

Dr. A. C. Yoder, Goshen: Expressed appreciation of the quality of the papers.

Dr. J. C. Fleming, Elkhart: Intellectual treat. One thought struck him—how beneficial to both the laity and to the profession it would be to have each man in the county doing a special line of work. Questioned Dr. Haywood about the knee case of which radiograph was shown. Did patient ever have an acute infectious disease, a history of syphilis, or of trauma?

Dr. C. W. Haywood, Elkhart: No such history was elicited.

Adjourned. JAMES A. WORK, JR., Secretary.

JEFFERSON COUNTY

The Jefferson County Medical Society met December 18. Dr. W. H. Stemm, counselor for the district, was present and gave a talk on the work being done in the district.

The following officers were elected for the year 1913: president, S. A. Whitsitt; vice-president, C. W. Denny; secretary-treasurer, F. C. Denny.

Adjourned. FRED C. DENNY, Secretary.

KNOX COUNTY

The Knox County Medical Society met in regular session December 10, with 24 members present.

The annual election of officers resulted as follows: President, H. W. Held; vice-president, C. W. Benham; secretary, H. D. McCormick; censor, A. W. Myers; delegate to State Association, C. S. Bryan; alternate, J. A. Smadel.

The society voted to pay the expenses of the secretary to the next session of the Indiana State Medical Association.

Society adjourned to a banquet at the Kaiserhof Hotel.

Adjourned. H. D. McCORMICK, Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held on December 31.

A banquet at the Hotel Hays was enjoyed by the members. Annual report of secretary-treasurer read and accepted.

Election of officers resulted as follows: President, C. E. Leedy, Piercetown; vice-president, C. E. Thomas, Leesburg; secretary-treasurer, G. W. Anglin, Warsaw; censor for three years, F. J. Young, Milford; delegate for two years, M. G. Yocum, Mentone.

Adjourned. G. W. ANGLIN, Secretary.

LAKE COUNTY

The annual meeting of the Lake County Medical Society was held in Hammond, December 12, with twenty members present. Minutes of previous meeting read and approved. Applications for membership from Drs. Chidlaw, Bicknell, Brink, Spear and Ver Plank acted on favorably by censors and they were elected to membership in the society.

The usual scientific program gave way to the annual address by the president, in which he reviewed the work of the year, pointing out our accomplishments, and referring to our shortcomings.

The secretary's annual report was presented, showing an increase in membership from fifty-nine in 1911 to eighty-two in 1912. Average attendance at meetings, 17.5; meetings held, eight; papers read, nine; case reports, nine. The secretary recommended that a monthly bulletin be issued by the society, which suggestion was adopted.

The following officers were elected for 1913: president, W. D. Weis, Hammond; vice-president, G. F. Bicknell, Hammond; secretary-treasurer, E. M. Shanklin, Hammond; censor, E. E. Evans, Gary.

Motion carried that one meeting each year be set apart for an oration on the history of medicine, or the life and work of some of the great leaders in the science and art of healing. On motion the September meeting was set apart for this purpose, and Dr. W. F. Howat selected as the orator of the evening.

The places of meeting for 1913 were arranged as follows: January to May, Gary; June, Crown Point; July to December, Hammond, the August meeting being chosen for the usual basket dinner at Lake Front Park, Hammond.

The program for the January meeting was announced as follows: "Local and Spinal Anesthesia," Dr. Bicknell; and "The New York Surgical Clinics," Dr. Hosmer.

Adjourned. E. M. SHANKLIN, Secretary.

MADISON COUNTY

The Madison County Medical Society met in regular session in the public library in Anderson, December 24, with fourteen members present.

The election of officers resulted as follows: president, M. A. Austin, Anderson; vice-president, S. C. Newlin, Anderson; secretary-treasurer, Etta Charles, Summitville; censor, F. F. Mendonhall, Elwood.

The president's address on "Closer Social and Professional Affiliation in Our Work," was listened to with intense interest. The discussion was opened by Dr. J. Stewart, followed by Drs. B. H. Perce and H. E. Jones, ending with a general discussion by every member present.

The meeting closed with an all-around handshake and the determination to keep the Madison County Society in the medical limelight for the next year at least.

Adjourned. ETTA CHARLES, Secretary.

MARSHALL COUNTY

The regular meeting of the Marshall County Medical Society was held December 26 at the Plymouth city hall, with eight members present. Minutes of previous meeting read and approved.

Dr. Wiseman reported a case of brow and face presentation. Dr. Loring reported a case of epilepsy cured by ovariectomy.

On motion the officers now in office were unanimously reelected to serve for another year.

Motion carried that chapter X of the by-laws be suspended and the members more fully notified concerning its ruling. Motion carried that no meetings be omitted in 1913 on account of holidays, but that the meeting be held the day after or before. Motion carried that secretary purchase a hectograph. Motion carried that microscope be purchased for the use of the society. Dr. H. P. Preston was appointed to purchase the same.

Motion carried that committee be appointed by chair to investigate the possibility of obtaining a room in the Plymouth Sanitarium for the society meetings. The following committee was appointed: Drs. Eley, Eidson and Preston.

The society discussed at length the subject of illegal practitioners. This resulted in the motion that the chair appoint a committee to investigate whether there be any such in Marshall County. Carried. Drs. Eley, Eidson and Preston were appointed.

Dr. Eidson read a paper on "Fractures At or Near the Elbow." General discussion.

Motion carried that the chair appoint a program committee for 1913. Drs. Loring, Holtzendorff and Thompson appointed.

A fee bill was also discussed.

Adjourned. A. A. THOMPSON, Tyner.

MONTGOMERY COUNTY

The regular meeting of the Montgomery County Medical Society was held December 17 at Crawfordsville, with twenty members present. Called to order by president, and minutes of previous meeting read and approved.

Election of officers for 1913 resulted as follows: president, P. J. Barcus, Crawfordsville; vice-president,

F. A. Dennis, Crawfordsville; secretary-treasurer, J. L. Beatty, Crawfordsville; censor, for two years, H. B. Williams, Mace; censor, for three years, W. G. Swank, Crawfordsville.

Dr. C. F. Neu, Indianapolis, presented the subject, "Neurasthenia, Its Significance and Treatment." He called special attention to the cause and prophylaxis of neurasthenia. A most common and distressing symptom is pressure about the head, and a feeling of inability to control such uneasiness. The essayist thinks most of the disturbance is due to this feeling of pressure. Extreme weakness, both physical and mental, is an early symptom. Dr. Neu discouraged the idea of sanatorium treatment for these patients, especially the routine treatment. Rest is of first importance and must be complete. Lying in bed late and also after eating is recommended.

Dr. M. A. Bahr, psychiatrician at the Central Hospital for the Insane, presented the subject, "Psychasthenia," or the mental disturbances connected with and following neurasthenia, calling attention to the differential diagnoses, and mentioning in particular a form known as hysteroneurasthenia. Special emphasis was laid on the various "phobias" and obsessions found in psychasthenia. Of some interest is the fact that the patient knows there is no sense in his act but he cannot control the action. While heredity plays a great part in the cause, psychasthenia is necessarily a chronic disease. The treatment is both physical and mental. By the physical treatment we strive to correct any deviation from normal by hygienic, dietetic and tonic treatment. Often a regular outlined course of physical exercise gives good results. In the mental treatment the physician must be sure of himself, sure of his diagnosis, and well able to intelligently enter into the patient's feelings and assist him to overcome these and regain self-control. A patient must have a useful occupation. Explain his discouragements and supplement his courage. Perhaps a change of environment is advisable. Every case is a law unto itself and any remedial measure should tend toward strengthening suggestive therapeutics. General discussion.

The plan followed out this year in meeting at 6 p. m., with luncheon and a social hour, has proven very beneficial to the society, and a much better feeling exists than did one year ago. It is therefore hoped that the attendance, which has not been quite up to standard the past year, will increase until every member of the society is present at each meeting.

Adjourned.

J. L. BEATTY, Secretary.

NOBLE COUNTY

The annual meeting of the Noble County Medical Society was held at Albion, December 20.

The scientific session followed a chicken dinner at the Albion House. Election of officers for 1913 resulted as follows: president, Fred R. Clapp, Ligonier; vice-president, J. H. Nye, Cromwell; secretary-treasurer, W. F. Carver, Albion; censors, J. E. Luckey, Wolf Lake; F. W. Black, Ligonier, and D. D. Johnston, Kendallville.

Application for membership from Dr. L. P. Wineburg of Ligonier was received.

Obituary of Dr. N. G. Reiff, late of Albion, was read, and resolutions of respect to his memory adopted by the society.

Each member received a check for treatment of the county poor, the society having for many years taken the contract for such treatment.

Dr. W. T. Green, Albion, read a paper on "The Treatment of the French Pox in the Year of our Lord, 1684." Dr. D. D. Johnston, Kendallville, reported a case of pneumonia with lack of the usual physical signs. Dr. W. F. Carver, Albion, reported a case of acute intussusception occurring in a child of 8 months.

Adjourned. W. F. CARVER, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting Nov. 12, 1912

Meeting called to order at 8:30 by president. Attendance forty-seven. Minutes read and approved.

Dr. Shimer reported for library committee that an arrangement had been made with city library whereby a member of the medical society would have the privilege of taking a number of books from library for a period of ten days provided society will stand responsible for return of books. The committee recommended that such an arrangement be made and in case of failure of any member to return loaned books at end of stated period, the librarian inform the secretary of society of the fact who will make the matter a part of the minutes. Society voted to accept recommendation.

First paper, read by Dr. R. G. Hendricks, "Ancient Surgery." The origin of surgery is very remote. Circumcision was practiced 5,000 years B. C. Castration for creation of eunuchs is one of the oldest of operations. Dental surgery was well advanced among Egyptians. Ancient Peruvians successfully trephined the skull. Podilirius, chief surgeon at siege of Troy, is the father of phlebotomy. Pythagoras, born 700 B. C., was first to practice dissection of lower animals. Hippocrates was born 450 B. C. He trephined the skull, excised pterygiums, removed tumors, operated for hernia, devised splints and bandages and extension in fractures and dislocations, opened abdomen and thorax in hepatic abscess and pyothorax, believed pus was formed from blood, knew little anatomy but made surgical observations that have stood the test of time. Galen was born 131 A. D. He applied two ligatures to an artery and by puncturing between demonstrated the presence of blood in the arteries instead of air as was currently believed. He stood on the threshold of two of the greatest discoveries of all time—the circulation of the blood and the application of the hemostatic ligature. He never knew the significance of his experiment. Cesarean section has been practiced from the remotest times. The bulk of modern instruments are only modifications of those devised by ancients.

Dr. Hamer read a paper, "Symptomatology of Urethral Stricture." After defining stricture, varieties, time of occurrence, location, pathology was discussed. Common symptoms are gleet discharge, frequent urination, pain, hemorrhage, sexual disturbances, changes in character of the stream, retention of urine and the various effects of long continued obstruction. The following conclusions were offered: (1) strictures of urethra particularly when of large calibre, are often overlooked as a cause of chronic urethritis, use of the bougie-a-boule and urethroscope being necessary for their detection; (2) 85 to 90 per cent. of strictures are gonorrheal in origin and severity of inflammation rather than number of attacks is responsible for tissue changes

resulting in stricture; (3) all strictures manifest a tendency to contract; (4) neglected strictures may result in periurethral abscess and urinary fistula or urinary infiltration with great destruction of tissue from necrosis; also bladder, ureter and kidney changes irreparable by treatment of the stricture.

Discussion.—Dr. McCown: Stricture produces more harmful results than is believed. Frequently in front of compressor muscle at triangular ligament there is a narrowing which is sometimes called a stricture. They are more frequent at the bulb and penoscrotal juncture. Stricture is progressive. There is danger of contraction and symptoms.

Dr. T. B. Eastman called attention to the work of L'are as a surgeon. He was first to do radical mastoid operation.

Dr. Reed: Inquired as to pathology of the polypi that occur in front of stricture in urethra.

Dr. Wynn: Stricture may cause constitutional symptoms which may be acute and extreme. Ascending infection is frequent. Historical research is of value and should be given more attention.

Dr. Dodds: The study of lives of ancient physicians shows that the new science of medicine is often a repetition.

Dr. Hamer, in closing, answering Dr. Reed's question—papillomata may be present near a stricture. Granulation tissue ordinarily present may appear as a papilloma. The sequelae of stricture are numerous and serious. Normal size of urethra is a matter of discussion.

Society adjourned.

HOMER R. MCKINSTRAY, Secretary.

Meeting Nov. 19, 1912

Meeting called to order by president. Attendance sixty-three. Minutes read and approved.

Applications of Drs. Charles W. McClintock, Walter F. Kelly and B. S. Potter were read the first time. The application of John A. Garrettson was read the second time.

Drs. Frank W. Cregor and H. A. Van Osdel were elected to active membership, and Severence Burrage was elected to associate membership.

Secretary called attention to the course of lectures given by pathological department of the Central Indiana Hospital for the Insane. Dr. Edenharter invited the society to attend these lectures.

The first paper, read by Dr. Strickland, "A Review of the Literature on Hyperthyroidism from 1882 to 1912." The review, while varying on points admitted to be proved, leads to conclusion that the thyro-parathyroid system is composed of glands having an internal secretion the known portion of which is an organic iodine. Also that cases presenting the syndrome of nervousness, fibrillary tremors, tachycardia, sweating of palms and soles, gastro-intestinal disturbances, excessive thirst, hunger, weakness, anemia and increased nitrogenous combustion (whether thyroid be enlarged or not) are believed to be due to an excessive secretion of thyroid gland and that frank cases of exophthalmic goiter are manifestations of a polyglandular disturbance. The glands of internal secretion (adrenals, thyro-parathyroids, ovaries, testicles, pancreas, pituitary, etc.) are probably connected in their functional activity—their functions being mediated by hormones, with seat of control believed to be lodged in the pituitary body. One of the functions of the thyropara-

thyroid system is believed to be an autoprotective one against endogenous or exogenous toxins, and that cases of marked auto-intoxication often show excessive secretion of the thyro-parathyroid substance, with manifestations of so-called hyperthyroidia and when the source of intoxication is removed symptoms are temporarily increased but later subside. Clinical observations and data must be secured before laboratory or experimental work along this line can stand.

Dr. G. B. Jackson, read a paper, "The Thyroid in Pregnancy."

DISCUSSION

Dr. C. P. Emerson: The recent ideas about the thyroid are not borne out clinically. Hormones have not been demonstrated and probably are not associated with all ductless glands. Definite demonstrations of the functions of ductless glands have not been made. Reasoning has all been done by analogy and more work is necessary. All is a matter of hypothesis.

Dr. Kimberlin: There is an element of doubt concerning ideas of ductless glands. Whole matter one of experiment and clinically cannot be applied. The work done is theoretical and unfinished. The future will probably bring many things but at present there is not much of practical value. The work begun needs to be finished experimentally and applied clinically. The term "exophthalmic goiter" needs to be dropped. Hyperthyroidism is a better term. The theories concerning the ductless glands do not harmonize with clinical observations.

Dr. Brayton: Imaginative work in medicine is necessary. Practical application is the end but there is value in theoretical study.

Dr. T. B. Eastman: The term dysthyroidism has been suggested as a better term than hyperthyroidism. Klose has a theory that symptoms of thyroid disease are due to a change of organic iodine to inorganic iodine.

Dr. Potter: The amount of study being given to thyroid and other ductless glands means great things for the future. The fact is established there are certain symptoms due to disturbed thyroid secretion. Myxedema and Graves' disease are opposite conditions but the cause has not been determined. There can be practical treatment to a degree. A case that developed an albuminuria at three successive pregnancies and later developed myxedema was reported.

Dr. Joseph Rilus Eastman: The hormone theory is a good working hypothesis. This theory has already taught us to appreciate corpus luteum and the relationship between ductless glands. Knowledge of surgeon must be definite in treatment of hyperthyroidism. Cases reported. Theories are of some practical use.

Dr. Sowder: Treatment of hyperthyroidism is not very definite and a discussion of theories may lead to practical application. Symptoms are not always characteristic nor are the changes in the gland always the same. Secretory disorders are probably secondary to those of other glands. More study is necessary to determine proper treatment. Sometimes patients improve without any treatment. Surgery is not indicated.

Dr. Bonn: The theory has been advanced that the symptoms attributed to thyroid are not due to the gland but to mental conditions using nerve energy.

Dr. Martin: Some knowledge of thyroid is definite. The idea of Moebius that Graves' disease is due to hypersecretion is probably a fact. The disturbances may be due to relation to some other gland.

Dr. Strickland, in closing, the paper was a review. The conclusions were those of Sajous. Laboratory work must be supplemented by clinical work.

Dr. Jackson, in closing, theories stimulate work and reveal the truth. Thyroid substance is a practical galactagogue.

Society adjourned.

HOMER R. MCKINSTRAY, Secretary.

Meeting of November 26

Meeting called to order by president at 8:30. Attendance 67.

Application of John W. Emhardt was read for the first time.

Meeting was at City Hospital. Clinical program arranged by Dr. Shuss.

Dr. Potter presented two cases of cirrhosis of liver. In each case there was an unusually large ascitic accumulation. Liver and thoracic organs were displaced upwards. Skiagrams were exhibited by Dr. Egart showing the marked displacement. The heart apices were in third interspace. The third case presented by Dr. Potter was a male, aged 35, with history of tuberculosis. Patient appeared with a large pleural effusion on right side. Slight irregular temperature at intervals has been present. Aspiration was not done. Few days previously pleural injection of normal salt solution was done to create pressure. Injection was easy because of effusion. Slight temperature followed for one day; 800 c.c. were injected. Normal salt solution was used instead of nitrogen, air or liquid petrolatum because of convenience.

Dr. A. E. Sterne presented a female, aged 19, with paralysis of left side. Patient had been well until four days previous. No illness or excitement. Paralysis came suddenly. Tingling was present for a few hours before paralysis appeared. Also some headache on left side before attack. Temperature subnormal on entrance. Complete motor and sensory paralysis. Reflexes practically normal. No ankle-clonus. By suggestion patient was made to move freely the supposed paralyzed leg and arm. Case plainly one of hysteria. Tender left ovary was only pathology discoverable.

Second case presented by Dr. Sterne was a female, aged 29, and married. Well until a few days ago. Entered hospital in semi-comatose condition with a diagnosis of alcoholism. Left pupil was dilated, right contracted, movement of eyes to left and tongue to right. Examination of eyes showed paralysis of right external and left internal and superior recti muscles. Partial paralysis of right side of face. Knee-jerks on right slightly exaggerated and on left diminished and both weakened. Syphilis or any profound toxemia might be a cause of the condition. There is no history of lues and a luetic condition is usually not so acute. There is a history of ptomain poisoning. The symptoms appeared while vomiting. There is a history of arthritis and a heart lesion is present. Multiple emboli might be a cause. The condition is probably an acute focal encephalitis due to emboli. A pyramidal tract lesion would cause paralysis. The prognosis is bad.

A third case just entering hospital was presented. Patient was middle aged man. History of recent injury by being struck by train. Examination showed scalp wound, hemorrhage from ear, and vomiting of blood. Patient comatose. Diagnosis fracture base of skull. Decompression indicated.

Dr. Sluss announced that refreshments had been provided.

Society adjourned.

HOMER R. MCKINSTRAY, Secretary.

Meeting of December 3

Meeting called to order at 8:30 by the president. Attendance 76.

Minutes read and approved.

Applications of Bert R. Rickards and C. M. Cain were read the first time. Applications of Mason B. Light, Lee W. Barry and Klore W. Hidy the second time.

Announcement of Seventh District Medical Association meeting at Martinsville December 12 was made.

Dr. Kimberlin presented first case. Patient was a female, aged 40. Complaint of pain in right arm on taking exercise. Loss of weight 35 pounds. No rise of temperature at any time. Swelling behind clavicle on the right side. Wassermann positive. Blood-pressure right arm 80, left 160. Tumor pulsates but not expansile. Bruit present. Aneurysm, malignant tumor, tuberculoma, lymphoma and syphilis were considered. Blood-examination showed lymphocytosis. Spleen negative and no anemia was present. Malignant disease not probable. Hodgkin's disease does not usually involve mediastinum early. The point is an unusual one for beginning tuberculosis. Anti-syphilitic treatment has not improved the condition. Diagnosis not positively made.

Dr. Torian: Pyelitis in an Infant. Patient was a female, aged 8 months. History negative. Illness was acute with a temperature of 103. Food was discontinued and oil given. Temperature remained high. Oil was repeated, with no improvement. Physical examination was negative. Urine was collected, examination of which showed 4 or 5 pus cells to field with the high power. Blood-examination showed 32,500 leukocytes with 80 per cent. polymorphs. Treatment with urotropin and potassium citrate alternately for a few days resulted in recovery.

Dr. Dodds presented some skiagrams showing transposition of thoracic viscera without transposition of abdominal. History was negative excepting presence of active pulmonary tuberculosis.

Dr. Heath reported a case of eye injury. Patient was struck in eye with a stone. At end of ten days when first seen there was extensive inflammation. Examination showed dislocation of lens with hemorrhage into vitreous. Treatment with atropin, dionin, hot applications and aspirin. Vision only to extent of light perception. Temporary improvement. Tension had increased from development of secondary glaucoma. Eserin substituted for the atropin. Projection developed at inner canthus. Condition unimproved. Enucleation advised. Dissection of eye showed tumor to be due to scleral rupture.

Dr. E. R. Bush: Case salivary calculus. Patient was a female aged 26. Appeared because of lump under tongue which caused pain. Family history of cancer. Personal history of "sore throat." Tumor first noticed 3½ years previous. Pain began five weeks previous after extraction of a tooth which required chewing on right side of mouth which was contrary to habit on account of pain. The day before appearance tumor ruptured with discharge of pus leaving something hard under the mucous membrane. Calculus was removed from Wharton's duct. Single large stone was found.

Patient made an uneventful recovery without recurrence of calculus.

Dr. Lindenmuth presented a case which had been presented in March last. At that time there was extensive carcinomatous involvement of the face. Since that time patient has had 34 x-ray treatments with practically a cure resulting.

Discussion—Dr. Brayton: Sebaceous glands of the skin may become obstructed and allow calculus formation as in the salivary ducts. Cases were reported.

Dr. Neu: Dr. Kimberlin's case does not appear to be one of aneurysm. The mass seems to be infiltrating and is not properly located.

Dr. Egart: Skiagram in case presented by Dr. Kimberlin shows a shadow behind the heart and the spinal column is not shown. An aneurysm of the sub-clavian might be present. The margins are too sharp for an infiltrating tumor.

Dr. Dodds: An infiltrating mass does not make a shadow.

Dr. McDonald: Needle exploration will give information in Dr. Kimberlin's case. If an aneurysm is present a cavity will be found and if solid tumor, resistance will be met. The case is impossible of diagnosis.

Society adjourned.

HOMER R. MCKINSTRAY, Secretary.

Meeting of December 10

Meeting called to order at 8:30 by the president. Attendance 76.

Application of William F. Baker was read the first time.

The meeting was held at Central Hospital for the Insane where a clinic had been arranged. Dementia Praecox was subject of symposium.

Dr. Max E. Bahr read a paper on "Etiology with Consideration of the Predisposition to Dementia Praecox."

Dr. Truman C. Terrell, Pathologist at the Hospital, discussed "Pathology, Course and Termination."

Dr. C. F. Neu read a paper covering "Symptomatology," and presented a number of cases representing the various types and phases of the disease.

Dr. Sterne: The clinic has been complete and the cases typical. It is hard to determine which cases will recover. Prognosis is better than was formerly considered and depends on damage done to nerve cells. The first stage is probably inflammatory. Early treatment might be successful. Data is incomplete. Origin is always toxic. Wassermann will probably show syphilis to be the cause of a large per cent. of cases. Report of five cases in one family with positive Wassermann reactions.

Vote of thanks was given Dr. Edenharter for arranging the meeting.

Society adjourned to room where refreshments were provided.

HOMER R. MCKINSTRAY, Secretary.

Meeting of December 17

Meeting called to order by president at 8:30. Attendance 81.

Dr. Brayton presented a case of Sporotrichosis. Patient, female, aged 38. First lesion in hand 3 months previous. Row of pustules now extending whole length of arm.

A letter was read from Dr. Hurty advising that society take some action in recognition of the efforts of post office authorities in suppressing fraudulent

medical institutions. Society voted that secretary write to postmaster general commending the department.

Application of Dr. F. G. McMillan was read the first time.

Dr. Clark was absent and his paper was read by Dr. Eberwein. Title "Splencetomy with Report of a Case." Patient, female, aged 24. Family history negative. At two years of age had an attack of fever lasting two months which was called typhoid. After patient recovered from this her mother noticed that her left side had lost its usual waist curve and was straight. Patient never seemed well after that attack. Never did any of the household duties and had much trouble attending school. Had to leave school frequently with stomach trouble. Had constipation and not much appetite. Belched a great deal. For three months before going to the hospital she was confined to bed. Tumor in left side had grown until she appeared to be pregnant at term. The stomach gave her the most trouble having to belch dozens of times daily. She looked thin, weak and anemic. Had great deal of nausea and vomiting. Blood examination showed 3,000-000 reds, 2,500 whites. Hemoglobin 70 per cent. Polynuclears 68 per cent., small lymphocytes 23 per cent. and large lymphocytes 9 per cent. Operation March, 1912. Long left rectus incision. Spleen found very large extending in the pelvis. Not badly adherent as is so often found in leukemia. Stomach very large. Spleen delivered, vessels exposed by blunt dissection, the artery being larger than abdominal aorta. Vessels ligated separately with cat-gut ligatures. No hemorrhage. Pancreatic tissue carefully avoided in placing the ligatures. An intravenous injection of salt solution given on the operating table. The spleen contained a large quantity of blood, evacuation of which reduced its size about one-half. Lavage for three days to control the stomach symptoms and morphia for pain. Patient made an uneventful recovery and was dismissed from the hospital in good condition on April 10. Literature was reviewed.

Dr. Alburger reported the microscopic pathology. Tissue showed an absence of any normal structures except the Malpighian bodies. Fibrous tissue comprised practically the whole organ. Process classified as hypertrophy with sclerosis. Sections exhibited.

Dr. Oliver read a paper on "Present Day Treatment of Fractures." The x-ray is a practical necessity in treatment of fractures. Decompression should be done in fracture of base of skull only when there is increased intracranial pressure. Early operation is indicated in fractures of spine. Intidental splints are not desirable in fractures of jaw; wiring when possible is best treatment. In fractures of surgical neck of humerus an axillary pad with arm fastened to body and wrist in a sling is satisfactory treatment. Primary bandage about elbow in fractures of lower end of humerus is liable to produce Volkman's contracture. In Colles' fracture the dressing should allow free movements of thumb and fingers. Fracture of femur is best treated with traction in abduction. If impaction of neck of femur, in majority of cases, it should not be broken up. In fractures of femur, coaptation splints and sand bags are not so good as plaster-of-Paris bandage. In compound fractures, iodine is ideal to destroy infection. Some cases will require irrigation. Wire and plates should not be used. Nails and splints are best to hold fragments. In delayed union a small drill should be passed in different directions through callus. Bone medullary splint and a plate is good treatment. Open

treatment of simple fractures is ideal when conditions justify the procedure. Instruments were demonstrated for open treatment of fractures.

Dr. Hadley: The subject of fractures is a live one. Older methods of treatment have not been satisfactory. Open treatment of simple fractures is recent method. Simple fractures have not been given much attention and only fair results have been obtained in the majority of cases. Open operation is best method of treatment. It is a question whether or not reduction be done in average case without open operation.

Dr. Jobes: In fractures of base of skull with bleeding from auditory canal irrigation and packing is not done on account of danger of contamination and obstruction to drainage. Decompression is done only when there is an increased blood-pressure. Treatment of fractures of bones of extremities is in a state of unrest. Some advocate early mobilization, others occasional operation and others operation in all cases. No rules will apply to all cases. Personally believes that open operation in simple fractures is not usually necessary.

Dr. Allen: Mercury bichlorid solution is best for irrigations. In the use of Lane's plates screws come out and infection results. In 30 per cent. of cases, plates have to be removed. In comminuted fracture of femur neither plates, splints or plaster will give good results. There has been nothing new in the non-operative treatment of fractures for many years. Reported a case of multiple fracture of femur and bones of leg treated with screw traction apparatus with good results. Wiring of fragments is not satisfactory since wires become loosened. Plaster causes atrophy.

Dr. Kimberlin: The public is becoming educated concerning treatment of fractures. X-ray is necessary. It is often difficult to treat cases properly. Dissatisfaction with results is frequent. Better education of profession is necessary.

Dr. Noble: There is a scarcity of literature relative to splenic diseases. Reported a case of rupture of the spleen with hemorrhage which could not be controlled with sutures. Two gauze strips were united with cat-gut, spleen enclosed and bleeding controlled by twisting ends. Absorption of cat-gut allowed easy removal of gauze. In a second case hemorrhage was controlled by sutures. Both cases were due to injury and in each case spleen had been adherent to abdominal wall.

Dr. Oliver, in closing, if good results are to be had in fractures, the bone ends must be approximated. Screw traction will not immobilize bone fragments.

Society adjourned.

HOMER R. MCKINSTRAY, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief description of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Ave., Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

NOVATOPHAN is ethyl 6-methyl-2-phenyl-quinolin-4-carboxylate, $\text{CH}_3\text{C}_6\text{H}_4\text{N}(\text{C}_6\text{H}_5)\text{COOC}_2\text{H}_5$, 6:2:4, the ethyl ester of paratophan. It is a crystalline, tasteless powder, insoluble in water. Its action is the same as that of atophan from which it differs only in being tasteless. It is also furnished in the form of Novatophan Tablets, 0.5 gm. ($7\frac{1}{2}$ grains), Schering & Glatz, New York (*Jour. A. M. A.*, Nov. 30, 1912, p. 1971).

HEXAL is hexamethylenamin salicylsulphonic acid, $(\text{CH}_2)_6\text{N}_4\text{C}_6\text{H}_5(\text{OH})\text{COOH}.\text{HSO}_3$. It is a white crystalline powder, soluble in water. It is a weak combination of hexamethylenamin and salicylsulphonic acid. It is claimed to have the action of hexamethylenamin combined with an anesthetic and astringent action on the inflamed mucous membranes of the biliary passages and urinary bladder, without having a deleterious effect on the bladder walls. Claimed to be useful in chronic inflammation of the bladder, posterior urethritis, etc. It is also furnished in the form of Hexal Tablets, 0.5 gm. ($7\frac{1}{2}$ grains). Riedel & Co., New York (*Jour. A. M. A.*, Nov. 30, 1912, p. 1971).

GLYCOTAURO, BILE SALTS, H. W. & Co., is concentrated ox bile, freed from bile pigments, each gram representing approximately 10 c.c. of fresh ox bile. It is a soft, semi-solid mass of bile-like odor and slightly bitter taste. Its actions and uses are those of bile salts. It is marketed in the form of Glycotauro Capsules, 5 gr. and Glycotauro Pills, 1 gr. Hynson, Westcott & Co., Baltimore, Md. (*Jour. A. M. A.*, Dec. 7, 1912, p. 2066).

MERCURIAL OINTMENT, IMPROVED, MULFORD, is an ointment containing 50 per cent. of metallic mercury in an ointment base consisting of anhydrous wool-fat, petrolatum and suet, aromatized. Its actions and uses are the same as mercurial ointment, U. S. P., but it is devoid of the unpleasant odor of the official preparation and is said to be more readily absorbed. It is marketed in the form of Capsules Mercurial Ointment, Improved, Mulford, 30 grains, and Capsules Mercurial Ointment, Improved, Mulford, 60 grains. H. K. Mulford & Co., Philadelphia, Pa. (*Jour. A. M. A.*, Dec. 7, 1912, p. 2066).

CYCLOFORM, isobutyl para-aminobenzoate, is 2-methyl-propyl-4-amino-benzoate, $\text{C}_6\text{H}_4(\text{NH}_2)\text{COO}.\text{CH}_2.\text{CH}(\text{CH}_3).\text{CH}_3$. It is closely related to anesthesin (ethyl aminobenzoate) and propaesin (propyl aminobenzoate). It is an odorless, crystalline powder, soluble in olive oil and only slightly soluble in water. Said to act on wound surfaces or mucous membranes as a superficial and prolonged anesthetic and as a mild antiseptic. Used as a dusting powder, 5 to 20 per cent. ointments, in suppositories and internally in doses of 0.1 gm. to 0.2 gm. ($1\frac{1}{2}$ to 3 grains). Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, Dec. 14, 1912, p. 2150).

REFORM IN MEDICINES

THE ANTISEPTIC ACTION OF HEXAMETHYLENAMIN.—The antiseptic action of hexamethylenamin seems to be due solely to the liberation of formaldehyd. This liberation is proportional to the concentration of the drug and therefore to the dose; and in the urine at least, inversely proportional to the quantity of urine. The liberation is most active in acid urines; but it may occur to a limited extent even if the reaction is alkaline; not, however, in the presence of free ammonia. The chemical and clinical data as to the liberation of hexamethylenamin is insufficient. The bacteriological results show that the administration of hexamethylenamin prevents the putrefaction of acid urine, that it has a much smaller effect on alkaline urine and that it confers a marked bactericidal effect on bile, and a distinct, but limited antiseptic effect on cerebrospinal fluid (*Jour. A. M. A.*, Nov. 30, 1912, p. 1989).

PEEKE'S EPILEPSY CURE.—"Professor" W. H. Peeke, 4 Cedar St., New York, sells a "cure for fits." Peeke claims that his remedy is "absolutely harmless" and that "the tender babe, the delicate woman, the sturdy vigorous man can alike take it." Analysis made in the A. M. A. Chemical Laboratory indicated the presence of about 13.7 gm. of sodium bromid and about 4.1 gm. of ammonium bromid in each 100 c.c. Alcohol, alkaloids and iodids were absent. A little alkali, probably sodium carbonate and a bitter substance, probably gentian, were present. The analysis shows that this preparation like every other "cure for fits" owes its effect to bromids and thus is not a "perfectly safe remedy" as claimed (*Jour. A. M. A.*, Nov. 30, 1912, p. 1990).

IDEX AND IODIN PETROGEN.—Iodex is said to be an ointment of iodine, containing 5 per cent. of therapeutically free iodine. What the significance of this term "therapeutically free" is we cannot tell. The preparation probably contains no considerable amount of free iodine. Iodin petrogen is claimed to be a solution of iodine in petrogen—a proprietary preparation essentially equivalent to liquid petrox, N. F.. From the nature of petrogen, it is probable that the greater part of the iodine is not in the free state. Neither preparation has been submitted to the Council on Pharmacy and Chemistry, which is an indication that the claims made for them would not be verified (*Jour. A. M. A.*, Nov. 30, 1912, p. 1992).

MCM.—This is a salve said to be a deodorant and found to contain: salicylic acid, zinc oxid, glycerin, water, a tallow-like fat and traces of essential oils (*Jour. A. M. A.*, Nov. 30, 1912, p. 1993).

PERUNA, ITS DYING GAS.—In an advertising campaign which promises to be its last, the Peruna Company—"Dr." Hartman—attempts to get even with the medical profession for the exposures which have come through its efforts. In this advertisement it is claimed that physicians have offered to sell their testimonials to the Peruna Company and particular mention is made of a letter said recently to have been received from a physician, who among other things claims to be medical referee for his county, a member of his state medical association and a member of the A. M. A. Investigation indicated that the writer, Dr. John L. Brown, Frenchburg, Ky., is a morphin addict and that he is neither the medical referee for his county, a member of the Kentucky Medical Association nor of the American Medical Association (*Jour. A. M. A.*, Dec. 7, 1912, p. 2084).

THE NEWER DIGITALIS SUBSTITUTES.—The recommendations for the newer digitalis preparations are often ambitious and include such claims as lessened toxicity, increased rapidity of action, diminished irritant effects permitting intramuscular or subcutaneous administration and absence of disagreeable manifestations on the alimentary tract in comparison with the older galenical preparations. The hitherto published reports on the clinical value of the newer substitutes are variable and conflicting; hence the need of unbiased and carefully controlled trials by methods which permit of some accuracy of judgment instead of the vague conjecture which attends so many of the bedside observations and conclusions. Lately three of the more recent substitutes for digitalis preparations—digalen, digitalone and digipuratum—have been investigated at the University of Cambridge by biologic methods in respect to their relative stimulating powers and toxicities as well as their irritant properties and their relative rates of absorption from the gastro-intestinal canal as compared with a physiologically standardized tincture of digitalis. The results of the investigation are summed up in the general statement that, all things considered it appears that not one of the new preparations is able to make a successful bid for superiority over an active tincture of digitalis, though it must be admitted that one of

these, digipuratum, has repeatedly been found to be a uniformly potent digitalis extract (*Jour. A. M. A.*, Dec. 7, 1912, p. 2074).

EXOPTHALMIC GOITER AND SUGGESTION.—Throughout the ages the suggestibility of patients suffering from exophthalmic goiter has made them favorite subjects for all sorts of therapeutic experiments. In the older history of medicine much is said about goitrous conditions which could be cured by various methods such as the wrapping of a dead snake around the neck, or the touch of a rope by which a man had been hanged. In more recent years thyroid, thymus, parathyroid, serum from thyroidectomized animals and other substances were at first thought of value but later found unavailing. Recently a series of cases of hyperthyroidism have been reported in which various operations on the nose and throat have brought great relief of symptoms (*Jour. A. M. A.*, Dec. 14, 1912, p. 2154).

FRIEDMANN'S TREATMENT FOR TUBERCULOSIS.—This method of treatment does not appear to be based on any new principle. It represents merely another effort to utilize for curative and preventive purposes the antigenic substances in the tubercle bacillus. This effect is secured, so it is said, with living bacilli, devoid of virulence and invasiveness, injected intramuscularly. The bacilli are said to be derived from the turtle, but the method by which they are deprived of virulence is withheld. In view of the probably false hopes aroused, the newspaper notoriety which this essentially secret treatment is receiving is to be regretted (*Jour. A. M. A.*, Dec. 14, 1912, pp. 2158 and 2159).

BAUMÉ ANALGESIQUE BENGUÉ.—In Great Britain it is advertised to the public. In this country the exploiters find that the space in cheap medical journals is a cheaper method of getting the stuff to the public. Analysis indicated menthol 18 per cent., methyl salicylate, 20 per cent.; lanolin, anhydrous, 54 per cent., and a fat, apparently lard, 8 per cent. (*Jour. A. M. A.*, Dec. 14, 1912, p. 2173).

THE EVOLUTION OF A PROPRIETARY.—As a general proposition, medicinal compounds are not born but evolved and often the proprietary and the official preparation may be based one on the other, while both are usually based on some preparation which antedates them. Lysol, the equivalent of which—liquor cresolis compositus—is official in the United States Pharmacopoeia, is a good example of the way in which manufacturers appropriate the discoveries of others, develop them and turn them to proprietary use. A study of the history of lysol shows that the use of soap as a means of making cresol soluble in water was gradually brought out and merely appropriated by the exploiters of lysol (*Jour. A. M. A.*, Dec. 14, 1912, p. 2173).

JIREH DIABETIC FOOD.—This is one of many vicious products on the American market that contain practically as much starch as ordinary flour but are sold under misleading claims as safe products for diabetics. Jireh flour was found to contain 73.02 per cent. carbohydrates, while ordinary wheat flour contains about 75 per cent. (*Jour. A. M. A.*, Dec. 14, 1912, p. 2174).

LYMPH INJECTIONS IN CHRONIC PARENCHYMATOUS NEPHRITIS.—In a case of chronic parenchymatous nephritis while the patient appears well and to enjoy the best of health, the use of lymph injections of the Animal Therapy Company, Chicago, is not advised. The administration of a remedy which might do harm should be undertaken only under the clearest indications. If the remedy contains as claimed a mixture of foreign protein it might easily injure a diseased kidney (*Jour. A. M. A.*, Dec. 14, 1912, p. 2176).

ASPIRIN AND ACETYSALICYLIC ACID.—Depending on the peculiarity of the patient both aspirin and acetylsalicylic acid produce gastric disturbances which are not uncommon. Linke found acetylsalicylic acid, von

Heyden, to be the equal of aspirin, both chemically and therapeutically (*Jour. A. M. A.*, Dec. 14, 1912, p. 2195).

THE GERMAN COUNCIL ON PHARMACY AND CHEMISTRY.—The committee appointed by the Congress for Internal Medicine—the German Council on Pharmacy and Chemistry—now consists of Penzoldt, Gottlieb, W. Heubner, G. Klemperer, A. Schmidt and Spatz, nearly all editors as well as internists. The secretary of the A. M. A. Council on Pharmacy and Chemistry has been appointed a consulting member. The organized medical press has agreed to submit all advertisements to critical inspection before accepting them (*Jour. A. M. A.*, Dec. 14, 1912, p. 2195).

WHAT'S WRONG.—Quoting figures from a recent census bureau bulletin, the *Medical Standard* claims that the consumption of "patent medicines" is increasing in this country and suggests that, "possibly there is something wrong with us" (the medical profession). While the amount of patent medicines manufactured in this country during recent years may have increased, the consumption by the people of the United States has diminished greatly. Lessened home consumption has driven the American patent medicine manufacturer to seek foreign markets and this explains the increased production. But there is something wrong with us, namely, the pernicious habit of prescribing proprietary mixtures, for the public is awakening to the fact that there is little difference between an "ethical proprietary" and a "patent medicine." A further something that is "wrong with us" is our easy going tolerance which makes possible the existence of such publications as the *Medical Standard* (*Jour. A. M. A.*, Dec. 21, 1912, p. 2264).

QUACKS RUN OUT OF KENTUCKY.—Recently a concern styling itself variously the "Advanced Medical Science Institute," "Radio-Electric Company," "Witman Medical Company" and "Delesh-Etts Company" with an alleged capital stock for each of these concerns of from \$25,000 to \$2,000,000 and claiming to be a part of the State Land Company of Oklahoma, with branches in a dozen or more states, began operations in one of the principal office buildings in Louisville, Ky. Flaming advertisements appeared in the newspapers telling of expert diagnosticians, scientific apparatus and numerous, miraculous cures. On investigation the State Board of Health of Kentucky found that the "expert diagnostician" was not a physician and that the only medical man was employed at a salary of fifteen dollars per week. The scientific apparatus consisted of a cheap fluoroscope by means of which it was claimed that gallstones, lung and kidney lesions, etc., could be seen. Through the vigorous prosecution of the state board of health the promoters were fined and also forced to agree to cease their operations, at least so far as the state of Kentucky is concerned (*Jour. A. M. A.*, Dec. 21, 1912, p. 2273).

BOOK REVIEWS

A MANUAL OF CHEMISTRY. A Guide to Lectures and Laboratory Work for Beginners in Chemistry. A text-book specially adapted for students of medicine, pharmacy and dentistry. By W. Simon, Ph.D., M.D., Professor of Chemistry in the College of Physicians and Surgeons, Baltimore, and in the Baltimore College of Dental Surgery, etc., and Daniel Base, Ph.D., Professor of Chemistry in the University of Maryland. New (10th) edition, enlarged and thoroughly revised. Octavo, 774 pages, with 82 engravings and 9 colored plates, illustrating 64 of the most important chemical tests. Cloth, \$3.00 net. Lea & Febiger, Philadelphia and New York, 1912.

The fact that this book has required the printing of ten large editions in order to supply the demand is sufficient testimony of its value and the approbation that has been accorded it. This last or tenth edition has been revised and given additions which bring the book thoroughly up to date, and the authors have accomplished thereby what they set out to do, viz.: "To furnish to the student in concise form a clear presentation of the science, an intelligent discussion of those subjects which are of interest to him, and a trustworthy guide to his work in the laboratory."

The subject has been divided into seven parts. The first deals with Chemical Physics; the second considers the Principles of Chemistry; the third, Non-metals and their combinations; fourth, Metals and their combinations; fifth, Analytical Chemistry; sixth, The Consideration of Carbon Compounds, or Organic Chemistry, and seventh, Physiological Chemistry. To the average medical reader the last chapter is of especial interest and value, as it gives the principal facts of physiological chemistry, and considers the modern methods for chemical examination in clinical diagnosis.

Throughout the whole work the idea has been to place in the foreground the facts and data which are of direct interest to the physician and pharmacist as well as the dentist, and the latest accepted facts and the most modern methods receive due consideration. Withal, the book is abreast of the times in modern thought on the subjects considered.

PATHFINDERS IN MEDICINE. By Victor Robinson, M.D., New York, Editor of Department of Medical History, Medical Review of Reviews. Pp. 317. Price \$2.50. Medical Review of Reviews Co., New York, 1912.

In the introduction to this work, Prof. A. Jacobi says, "I deem it a privilege to have read these essays on Pathfinders in Medicine." We quite agree with the sentiment. It is a source of instruction and edification to be able to read the reports of by-gone times and a brief history of men who have helped to make medical science what it is to-day. We are too apt to live for the present and consider only the future. It ought to arouse our enthusiasm and gratitude to learn how the present status of medicine and surgery has been brought about by the lives and work of our predecessors. The history of medicine should form a part of every medical man's education, and this book which consists of the story of men who are epoch-makers in medicine will prove a valuable addition to any man's library.

Aside from the introductory, the various chapters are as follows: Galen and Greek Medicine; Aretaeus, the Forgotten Physician; Paracelsus, Iconoclast of Medicine; Servetus, the Medical Martyr; Vesalius, the Anatomist; Paré, the Surgeon; Scheele, the Apothecary; Cavendish, the Chemist; Hunter, the Natural Philosopher; Jenner and Vaccination; Laennec and Auscultation; Simpson and Chloroform; Semmelweis, the Obstetrician; Schleiden and Schwann; and Darwin, Saint of Science.

The book is exceedingly well written, and in a conversational style which holds the interest of the reader.

SURGERY OF THE MOUTH AND JAWS. A Practical Treatise on the Surgery and Diseases of the Mouth and Allied Structures. By Vilray Papin Blair, A.M., M.D., Professor of Oral Surgery in the Washington University Dental School, etc. With 384 illustrations. Pp. 638. Price \$5.00. C. V. Mosby Company, St. Louis, Mo. 1912.

This is one of the first, and certainly the most comprehensive book of its kind that has ever been published. The subject matter has been thoroughly covered, and from the standpoint of the dental as well as the medical profession. It is, in reality, a practical treatise on the surgery and diseases of the mouth and allied structures, and contains within its pages much information which is only gained through a perusal of numerous surgical and dental text-books.

Of especial interest are the chapters on the various fractures of the upper and lower jaws, congenital defects such as clefts of the palate and lips, diseases of the maxillary sinus, tumors and inflammations, and injuries of the soft parts, and hemorrhages.

The book concludes with chapters on local and general anesthesia. The entire 44 chapters are devoted to an exhaustive consideration of the diseases and deformities of the mouth and jaws, and the work has been done in an exceedingly thorough manner. The illustrations are especially noteworthy, and the abundance of them serve to enhance the value of the work.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO, ILL. October, 1912. Published bi-monthly by W. B. Saunders Co., Philadelphia and London. Price per year, \$8.00, paper.

Various subjects considered in this number are anesthesia, nephro-lithiasis, cholecystitis, gastro-duodenal ulcer, appendiceal abscess, colonic adhesions simulating recurrent appendicitis, exophthalmic goiter, traumatic lesions of the brain, trifacial neuralgia, tumor of spinal cord, chronic mastitis, recurrent ovarian cystosarcoma, retroversion of uterus, rectocele and perineal lacerations, ununited fracture of humerus, fibro-cystic osteitis, ankylosis of elbow and hip-joint. The number partakes of the same practical treatment of the various lesions considered that has characterized the publications throughout. The remarks on anesthesia are timely and to the point. There is no longer any doubt of the desirability of maintaining the trained anesthetist at every clinic.

The skiagram in the illustration of renal calculus well illustrates the futility of attempting to reproduce skiagraphic pictures upon paper. Few clinicians would venture a diagnosis of renal calculus upon data afforded by this picture. Other skiagrams and illustrations are much better done. All told, the number measures well up to the standard of the other numbers of the volume.

ELEMENTARY BACTERIOLOGY AND PROTOZOÖLOGY. The Microbiological Causes of the Infectious Diseases. By Herbert Fox, M.D., Director of the William Pepper Laboratory of Clinical Medicine in the University of Pennsylvania. 12mo, 237 pages, with 67 engravings and 5 colored plates. Cloth, \$1.75 net. Lea & Febiger, Philadelphia and New York, 1912.

This little work is intended as an elementary textbook of bacteriology and protozoölogy for nurses and beginners. The purpose is to give a practical idea of the nature of microorganisms, the way they enter the body, their action in the body, their manner of exit and transmission from one individual into another. Various useful directions upon the different subjects incident to the nurses' daily routine such as collecting cultures from throats, sputa, etc., the essentials of sterilization and a general survey of the commoner microorganisms and protozoölogy constitute the bulk of the work.

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OF THE

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VOLUME VI

FORT WAYNE, IND., FEBRUARY 15, 1913

NUMBER 2

ORIGINAL ARTICLES

A CASE OF DIAPHRAGMATIC HERNIA *

J. C. SEXTON, M.D.
RUSHVILLE, IND.

I am honored by your invitation to read a paper before your society and I take the opportunity to record a case in which the anatomic and pathologic conditions were not corrected by the surgical measures employed. The patient, however, came to us seeking relief from symptoms which were rapidly destroying his health and threatening his life. These symptoms were corrected and the patient's health rapidly restored. I offer for your consideration this brief report.

On August 23, 1912, Mr. D., 36 years old, left the Methodist Hospital, having undergone a posterior gastro-enterostomy, with anterior gastro-plication and fixation two weeks before.

The conditions to be corrected by such surgical procedure were found to be a dilated stomach and duodenum, and hernia of the stomach through the diaphragm into the thoracic cavity, the esophageal opening having become dilated into a large arched abnormal passage through which one could readily pass his entire hand. At the time of operation almost the entire stomach was found within the thoracic cavity.

The pull of the stomach to the left had produced considerable displacement of the peritoneum of the right upper abdomen. The layer of peritoneum covering the second portion of the duodenum was carried forward and to the left in such a manner as to present a triangular fold or layer of peritoneum abnormally thick, the division of which disclosed the dilated duodenum.

Following up the duodenum to the pylorus, the stomach was found and withdrawn from its abnormal position.

The history of the case goes back twenty-five months, up to which time the man had always enjoyed perfect health, weighed 180 to 190 pounds, and never had missed a day from work because of sickness. He gave a report of a fall one time with injury of the back, from which, however, he completely recovered. At work in the hay harvest of 1910, he suddenly felt something give way in his left side, or back—or "clear through him," as he said—which was attended with some pain and faintness. He had not been able to do any heavy work since that time. He had had in this last two years many attacks of vomiting, sometimes lasting a week, many attacks of so-called neuralgia of the stomach, or stomach pain—some of them sufficiently severe to require the attendance of a physician and the hypodermic injection of morphin.

Later on he was educated to the use of the stomach-tube, and by the prompt application of stomach washing could always bring relief to his discomfort.

The problem, however, that was forcing the case was one of bodily nutrition. Notwithstanding his excellent appetite he seemed to be able to get nothing but harm from his food, for it would not, or could not, pass on out of his stomach in proper quantity or preparation to sustain him. The report he gave was not of pain exactly, but of overdistention, so that not long after eating he would become so full and distended, so tight and uncomfortable, that he could not get his breath, and his heart would pound so that he could distinctly hear it—then the stomach-tube and quick relief.

Examination August 7, 1912. Patient weak, anemic, weight 110 pounds. Temperature normal, pulse 120, respiration hurried and cough

* Read before the Tenth District Medical Society, at Hammond, Ind., Nov. 20, 1912.

on exertion. Physical examination revealed a bulging of the lower left costal cartilages, with no points of tenderness on pressure anywhere over the abdomen. Apex beat one-half inch above and one inch to right of the nipple. Heart sounds normal. The lung resonance and stomach tympany were quite sharply divided just below the nipple level. Stomach tympany extended well down into the abdomen on the left side, but does not pass to the right of the median line. No tumor or glandular enlargement could be detected. The respiratory murmur was normal above, but could not be heard at all below the nipple line.

The stomach contents, withdrawn ten hours after eating lightly of tomato soup, gruel and coffee, were analyzed by Dr. C. R. Strickland, and were found to be undigested, with a sour fermentative odor, mildly acid and red from tomato. Total acidity of 45, free hydrochloric acid 0.12 per cent.; no organic acids; showing low acidity, delayed motility and great quantities of mucus. Urine scanty in amount, but normal in quality. Bowels constipated. On account of the prostrated condition of the patient no further study of the case was made and early operation was advised.

The diagnosis of dilatation due to pyloric or duodenal obstruction was recorded. The patient entered the hospital, was given stomach lavage of mild sodium bicarbonate water every six hours and rectal injections of salt solution and coffee. Operation was made forty hours later, on August the 9th.

Thinking we had to deal with some pyloric or duodenal pathology, a four-inch epigastric incision was made one-half inch to the right of the median line. With the abdomen open I was, for a while, confused at finding *no stomach*. Cutting through the layer of misplaced peritoneum the dilatation of the duodenum was found to be due to a constriction at the ligament of Treitz, evidently from rotation of duodenum to the left. The pylorus was found well up under the left lobe of the liver, and only moderate traction was required to deliver the greatly dilated stomach. There were no adhesions to prevent its complete delivery out of the incision. The opening of the diaphragm was explored, but no attempt made to close it, because it was inaccessible from a right-sided incision.

To drain the dilated stomach, and at the same time fix the posterior wall to the transverse mesocolon, so that it could not again pass through the opening, was readily accomplished by a posterior gastrojejunostomy. The anterior wall was drawn

well to the right and secured by plication sutures to the parietal peritoneum and transversalis fascia. The recovery was uninterrupted, and so rapid that he, *without my order*, left the hospital and went to his home, an hour's railroad journey, on the fourteenth day.

Examination of the patient seven weeks after his operation. He has had no trouble in any way and has gained three pounds in weight each week. Physical examination gives normal stomach tympany in front chest and over abdomen. The bulging of the costals and lower left chest has disappeared. There are breath sounds over the whole left chest. Symptomatically, then, the case is a perfect success in that he has obtained relief and is free from all his symptoms.

Anatomically, however, the results are not so good. The x-ray plates, made by Dr. A. M. Cole of Indianapolis, and I must add interpreted by him, show a bismuth shadow above the diaphragm—the fundus of the stomach has again passed through the opening and occupies the thoracic cavity.

A second exposure shows also that the stomach has emptied itself of a pint of bismuth milk in forty minutes. The doctor also points out that most of the stomach contents find their exit by the normal pyloric route, rather than by way of the anastomosis. The plates also show that the dilatation has been very materially reduced.

Examination November 15. Patient continues to gain in weight and strength. He has no trouble at all with his food. Digests everything readily and perfectly and his constipation is cured. Lung resonance can be heard over the whole of the left lung with no gurgling sounds, either front or back. The x-ray shows the stomach-tube filled with bismuth passing into the bowl of the stomach below the diaphragm.

There have been reported some five or six hundred cases, some say a thousand. Forty or fifty per cent. are congenital hernias. These babies are very feeble, few live out the first year. A congenital hernia and a congenital abnormal opening are not the same thing. One may carry an abnormal opening and the rupture not take place until later along in life. The defect is always in the left diaphragm. The liver protects the right half. A dilated or over-stretched esophageal opening is the most common lesion. The hyperacute cases often occur at the triangular opening just behind the lower end of the sternum, where there is no diaphragm really—only a layer of areolar tissue between the thoracic and the abdominal cavities. Then there are cases recorded where there is a simple defect, Scudder's

case for instance, a round hole in the middle of the left diaphragm having no relation to the normal openings. We are unable to account for such cases. All the abdominal organs have been found in hernia through the diaphragm. Most often it is the stomach; then large intestine, omentum, small bowel and spleen. Traumatic cases are not now under consideration. Stab and bayonet wounds have usually proven fatal, and for the most part have been detected at autopsy. Having an abnormal opening or an enlarged normal opening in the diaphragm it remains then for some violent increase of intra-abdominal pressure to produce the hernia. Inflammation occurs in many cases—adhesions form and prevent the return of the herniated viscera. Strangulation occurs in some acute and hyperacute cases giving the clinical picture of bowel obstruction. Operation is made and the obstruction is not found. Cordier reports one such case.

More often there is no inflammation—then the abdominal organs may return to their normal position and the symptoms disappear. Irregularity and uncertainty of symptoms are the rule, with often complete relief between attacks. Then again the hernia may be permanent and present few subjective symptoms until some circumstance arises that forces additional contents into the hernial opening. The symptoms vary according to the amount of the herniated contents and the degree of constriction. Periods of suffering alternate with intervals of complete relief. Usually the patients have no discomfort as long as the stomach is empty. Introduction of food into the stomach is immediately attended with gas formation which balloons the fundus, causes cardiac distress and displacement. Almost all the reports at my command record a dextro-cardia. Retention of undigested food and distention from gas rapidly or gradually produce dilatation—distortion of the costal outline and bulging of the left lower chest. All the cases report vomiting at times, annoying thirst and constipation. Mental depression and insomnia from toxemia, pallor and weakness from anemia, cough and dyspnea from cardiac disturbance.

Thus the clinical picture will be one of severe illness. All reports verify the serious condition of such patients. Physical examination reveals the misshapen lower left chest, the dextro-cardia, the loss of vocal fremitus and respiratory sounds over the lower portion of the left side, the sharp line dividing the lung resonance and stomach tympany, the abnormal height of the stomach tympany, "the gurgling and ring sounds on the affected side not synchronous with respiration."

These signs and all the symptoms in fact which are subject to all manner of variation go to make the diagnosis far from easy.

Deaver says "the physical signs of a diaphragmatic hernia are much more precise in theory than in practice. We know certain so-called pathognomonic signs by means of which diaphragmatic hernia may be distinguished from pneumothorax and other conditions which it resembles more or less closely; but when practical application is made of the tests it must be acknowledged that both physician and surgeon frequently remain undecided as to the true condition."

La cher, in 1880, collected 276 cases only seven of which were diagnosticated during life. Dr. Emerson said to me that the four Johns Hopkins cases were not correctly diagnosed.

Of three cases in the Mayo Clinic, reported by Beckman, one was diagnosed correctly prior to operation; one was operated under diagnosis of ulcer, and the third discovered during a gall-bladder operation. This last case, however, presented certain peculiar stomach symptoms that led to the search, but what in all probability *really* caused the detection of the hernia at the hand of this master surgeon was finding *no stomach* when he opened the abdomen. A fourth case operated by Dr. Mayo was correctly diagnosticated prior to operation by Giffin and reported by him in the *Annals of Surgery* for March, 1912.

In the September number of *Surgery, Gynecology and Obstetrics*, Dr. Seudder, of Boston, reports most graphically a case in which the diagnosis was made by the aid of the x-ray. Dr. Seudder filled the stomach-tube with bismuth and photograph showed the tube curving up into the left chest. Hirsch—quoted by Douglas—filled a tube with quick-silver and the radiograph confirmed his diagnosis, for it showed the tube turned on itself and occupying a tympanitic zone in the left chest.

So I might say that less than a dozen times in somewhere near a thousand cases reported has the diagnosis been made, at least in those subjected to operation. Seudder's review of the subject says "there have been about fifty-three operations done for diaphragmatic hernia, with diagnosis in only seven instances." Therefore, I offer no apology for my failure to recognize the condition, notwithstanding the well-nigh complete train of symptoms presented.

The failure to do so was due chiefly to the fact that none of us even thought of such a condition and none of us had ever seen a case. Another

thing was the limited time at our disposal. When I tell you that the man was nearly starved, that the pulse went to 160 at the operation you can understand why we proceeded at once to his surgery without taking time to exhaust all our diagnostic resources. The diagnosis, then, can be readily made in most cases by means of the x-ray alone, but it will not be made by anybody who does not even include it in his diagnostics.

The prognosis is bad absolutely. These patients will all die of strangulation, or if not, from exhaustion unless the herniated abdominal viscera are returned and retained within the abdominal cavity. Death is usually from strangulation, constriction and impeded circulation. Acute symptoms supervene on the regular course of the distress and the patient succumbs in from one to five days.

There is no treatment. Operation cures some, but the mortality is still very high. According to Dr. Scudder's paper, of forty-two operated by the abdominal route, only seven have survived. The other thirty-five died, whether as a direct result of the operation or not, I am unable to report. Eleven cases have been operated through the chest with seven recoveries. Frequently the opening is inaccessible. The patients are all sadly reduced. Scudder was unable to complete his operation at the first effort. He could only withdraw the incarcerated colon, leaving the stomach within the thorax, then a month later made a second operation to withdraw the stomach and close the opening in the diaphragm.

Dr. Mayo placed a row of mattress sutures around the opening and into the stomach wall, thus securing the stomach to the opening. Operations have been too few as yet to establish a technic and moreover no regular plan can ever be selected, because no two of the cases will be alike.

The operative procedure in my case was the one that suggested itself at the time as most feasible, for we were out to save the patient, whom we would almost certainly have lost in a prolonged operation.

It is disappointing, of course, to find the stomach again crowding into the thorax, but with restoration to good health and strength he can undertake an operation to either repair the defect or to stitch the stomach to the opening with reasonable expectation of a successful result.

DISCUSSION

DR. B. VAN SWERINGEN, Fort Wayne: In the first place I want to congratulate Dr. Sexton on the fortunate outcome of his very unusual case,

and compliment him on the readiness with which he met the emergency.

To continue the discussion of this subject I would like to report a case occurring in my own practice which will illustrate the difficulties usually encountered in making the diagnosis.

Mr. C. C. K., 67 years of age; a resident of Fort Wayne; was seen in consultation with Dr. Melvin Tinkham on Feb. 1, 1906. The only important incident in his history was the receipt of an accidental injury on Dec. 15, 1892, while riding in an elevator. The elevator was used for carrying freight and the shaft was not properly enclosed. While rising from one floor to the next one above his shoulder caught on a projection and he was doubled up in such a manner that his chest and abdomen were squeezed against his legs or thighs. In addition to this his left forearm was broken. He was not thought to be seriously hurt at the time, although he kept his bed for several days after the accident. After this time he went to the doctor's office to have his fracture dressed. Following this injury he developed some trouble with his digestion. The complaint was rather indefinite and consisted in a sense of fullness after eating together with an oppression in his chest, a sort of shortness of breath.

I was asked to see him fourteen years after his accident, or on Feb. 1, 1906, in one of his attacks of stomach trouble ensuing on a meal of indigestible materials. He was in bed, and the burden of his complaint seemed to be a desire to empty his stomach which he was unable to do. In making the examination it was discovered that the normal area of stomach tympany was absent and that the apex beat of the heart could not be felt in its usual location.

On further search the cardiac impulse was found entirely on the right side, and the apex under the right nipple. Continued examination of the chest developed a typically tympanitic note over the whole left side, front and back. Auscultation also revealed a succussion splash and metallic tinkling. These signs were very puzzling in view of the fact that no history of pleurisy could be elicited. Indeed there could be had no history of any kind of illness which could by any stretch of the imagination be held responsible for the physical signs present. Diaphragmatic hernia was discussed as a possible explanation, but dismissed as improbable because of the absence of a history of dyspnea at the time the injury was received, and the fact that he was able to walk to the doctor's office to have his fracture dressed within a few days after its receipt. We were completely at a loss to explain the case and regarded it as a medical curiosity until his death, which occurred quite suddenly and unexpectedly, on February 6.

At the autopsy the left lung was found completely compressed against the spinal column by

the stomach, which was herniated through the diaphragm. The stomach was adherent to the parietal pleura, and the bony chest walls made it impossible for it to contract on its contents. It was in a state of permanent distention and completely filled the left chest at all times. When it was not filled by food it must of necessity be filled with air or gas. It was probably this fact that accounted for his peculiar efforts at swallowing and belching, which he frequently made. As the food left his stomach it must be replaced by air.

At the time the autopsy was made no effort was put forth to determine whether this was a true hernia or not; that is, whether or not a process of peritoneum had been pushed before the stomach when it entered the chest cavity. On account of the fact that the stomach undoubtedly entered the pleural cavity suddenly at the time of the elevator accident fourteen years before. I do not believe it was an example of a true hernia.

One other case of diaphragmatic hernia occurred in my practice in the person of a still-born babe, which could not be made to breathe. The only abnormal external appearance was a scaphoid abdomen. After half an hour's effort at artificial respiration the heart stopped and I obtained consent to a post-mortem, when it was found that most of the abdominal organs were in the thorax. All of the stomach and bowels as well as the pancreas and spleen were pulled through an enormous deficiency in the diaphragm.

In the acquired cases, according to Giffin (*Annals of Surgery*, March, 1912), the most important and difficult differentiation to make is that between diaphragmatic hernia and elevation of the diaphragm. About twenty cases of the latter are reported in the literature. It is not an operative condition, whereas diaphragmatic hernia is generally surgical. The importance of deciding between the two conditions is therefore increased. Cases of elevation have been diagnosed hernia and operated on.

The diagnosis of hernia is made probable if there be a history of severe injury which was immediately followed by marked dyspnea, with severe upper abdominal and left thoracic pains, possibly with symptoms of intestinal obstruction and hematemesis.

Chronic cases of hernia, either congenital or traumatic, may give a less striking symptomatology and a history of much less severe injury. In this they approach the symptoms of elevation of the diaphragm where abdominal pain, dyspnea and vomiting, though less severe, may recur in attacks, and these may be worse after trauma without rupture being present.

Tympanitic percussion note, distant breath sounds, gurgling and tinkling sounds, says Giffin, over the left lower chest, with hyperresonant note and normal or slightly altered sounds over the

left upper chest are common to both conditions. The heart is displaced to the right.

X-ray plates following a bismuth meal should give some help, and Giffin suggests that the colon be filled with bismuth and skiagraphed, because of the fact that the colon is also frequently herniated with the stomach.

PHYSICAL INSOLVENCY

H. O. PANTZER, M.D.

INDIANAPOLIS

A searching survey of human communities the world over, will reveal a startling number of physically insolvent individuals. The long list of deaths in this class, it may be assumed, in every twenty-four hours, equals the distress wrought and the lives lost in a *Titanic* disaster, or in a San Francisco earthquake. Yet, be it observed, the state takes no steps to avert the regular daily repetition of such calamity, and medical science, though potent to relieve is in no position to administer its remedies. The ill-fated individuals drift, as it were, to their destruction, unaware of the dangers insidiously growing on them. I dare say—though addressing in this assembly a crew of life savers, thoughtful and valiant as can be found nowhere better—I dare say that these remarks require specific explanation before their full significance is caught even here.

Now then, what members of society constitute this class?

There is the physically deficient individual, who as an enteroptotic, reaches adult years without possessing maturity of organic functions and powers, and yet is forced to engage in the competitive strife of life with his fully ordained brother.

There is the victim of chronic constipation, with its attendant vitiating and disabling auto-intoxication, who, in his serious handicap, sooner or later is totally wrecked by an acute infectious toxemia which his foundered glandular organs cannot resolve.

There is the intense and incessant worker—banker, merchant, lawyer, or even doctor—who unconsciously exhausts his nerves, overtaxes his heart, and who suddenly collapses with apoplexy or angina pectoris.

There is the road laborer, who after his day's toil in all sorts of weather, skin and clothes begrimed with toxic sweat and infectious dust, without cleansing, bath or change of robe, seeks sleep and recreation in crowded tenement quarters, who falls straightway when the ever-imminent pneumonia besets him.

These examples here may suffice to suggest others of the uncanny list of insidious slayers of the human race. They disclose at once, as each type is reviewed, that effectual prevention and interception can be brought to bear on these now helplessly doomed individuals.

It is singularly instructive to note the handicap of the medical profession and the lethargic inactivity of the state in the presence of these cases. The medical practitioner, as conditions are, is not called to any except the seriously ill. By his training and more yet by his circumscribed experience, he is singly adapted to cope with disease at the full blown stage. He is called late in the disease, and he is beckoned off when the first symptoms of convalescence have arrived. This restricted activity of the physician almost fatally circumvents his qualifying for the early stage of disease and for the function of a public guardian.

Even more—almost absolute—is the disability of the physically aberrant individual to detect his ill-fated course until grave injury to organs and life prevails. He slowly and steadily drifts along, without a friend or foe indicating to him his treacherous course.

Here the need of life-saving efforts by the state is drastically evident. That the state shall look after, provide for and protect its helpless ward, is in principle quite universally conceded. Life-saving crews spy the sparsely boarded waters all along their shores. Life-saving crews all over the densely populated land are even more consistently required.

Society has installed government protection for various reasons. Foremost among them is the one of protection to its individuals against harm of all sorts. History, even back in medieval times, when the practice of medicine stalked on seant legs, born of the noble desire to help, rather than of scientific knowledge capable of succor, I repeat, history records variously that the states recognized their interest in and obligation to sanitation. The evolution of medicine into a practical science—the epochal accomplishment of this, our age!—must now quicken governmental conscience. The state must assume its full burden of sanitation in the modern sense and likewise it must take over *the practice of medicine as a state function*.

Eminent foreign states have for several centuries assumed the task of educating their practitioners of medicine. All countries now are treading this path of wisdom, though be it here said, with embarrassment our otherwise virile and advanced state as yet, trails far behind in this course. Our last legislature without having voted anything for its buildings and equipment voted the piteous sum of \$25,000 for the main-

tenance of the Indiana School of Medicine. It thereby placed itself in unenviable contrast with little Hungary, who thirty years ago expressed its appreciation of the momentous importance of medicine by expending \$2,500,000 for its institutions, and proportionately for their maintenance.

The one supreme asset of a state, aye, the one essential cause of its being, is its human population. The many arguments in favor of medicine as a function of the state by practitioners of its own creation and keeping, unfold themselves so naturally to the medical mind, that under the pressure of time of this occasion no more than its general announcement may be required here. A special paper on this phase may serve the purposes of another meeting day.

From the view of individual exigence, one will wonder at once, why does the state not take regularly the inventory of its most alive and important asset, namely, of its individual citizens? The wise merchant, without fail, once or even more times annually, goes over his stock, revising, recording and estimating, replenishing and foreselling, singly and all, the articles in his store. Shall we not have done like-wisely by the articles so vital to our individual being as are the organs of the human body?

When modern medicine offers to the state such bargains—as *the fates never before have had in store for humanity!*—shall we not expect the state to jump at its opportunity? Or, if need be, returning to the above comparison, shall we not as live nineteenth century sanitary drummers, exert our faculties to open the eyes of our commonwealth to our goods?

NOTES ABOUT SOME OF THE CLINICS OF EUROPE

J. O. STILLSON, M.D.
INDIANAPOLIS

A good working knowledge of the languages is a very great help. Not that English is rare on the continent as a spoken language; it is very much more common than one would believe. Bell-hops, janitors, bootblacks, hotel clerks, in fact everybody is trying to learn English. This seems to foreshadow the probability that within the next fifty years there will be one universal commercial language, and that will be English. Nevertheless, while it is possible, it is by no means best or even advisable to depend on the English language, for the reason that foreigners take advantage of Americans. Much better terms

may be made and much annoyance may be avoided by being able to defend one's rights and claim services to which one is entitled without extra expense, provided one can speak the language of the country. Natives who understand the customs and know their rights have only to claim them, while Americans are unmercifully fleeced whenever the opportunity presents.

In a letter published in the July number of the *Indianapolis Medical Journal* I referred to the names of some of the illustrious dead who have passed into medical history: Pasteur, Claude Bernard and others, whom it was my good fortune to hear lecture in my student days. That was thirty-six years ago, in the year 1876. If I remember correctly it was about the year 1881 or 1882 when Koch's tubercular bacillus was discovered. Pasteur at the time I was there was making history. He had been sought out by the wine growers of France and had discovered the phylloxera; he had saved their vineyards and had explained the cause and the process of fermentation. Over at Renvier's laboratory in the College of France we had learned to find bacteria. We did not know what they were, although we saw them in almost every kind of substance we examined. What a revelation was in store for us five years later!

Claude Bernard with his dogs with those cannulas in their stomachs was imitating on animals the experiments of Dr. Beaumont on Alexis St. Martin, the first time any one had looked into the human stomach. If I remember he was the first, or among the first, whom it was my good fortune to hear lecture. I remember how charmed I was with his easy, flowing, distinct articulation of the French. He seemed to select the words which he thought we could best understand. It was a delight and an inspiration to hear him. But now my old professors were all gone. Their busts or statues in bronze or marble were to be found here or there, or their names were over the portals of the wards of hospitals or at the corners of new streets opened up since I was there. Men come and go, but institutions remain to carry on their work after them.

In Paris the hospitals and institutions of learning are all under the control of the municipality. They are for the service of the poor. All appointments on the hospital staffs are on account of merit, and for the most part after competitive examinations, and such appointments are for life or good behavior. Their hands are free and their authority absolute.

The locations of the various hospitals are as follows: Ecole de medecine (University) Pl. St. Germain and rue d'Ecole; Hôpital Hotel Dieu,

Place du Parvis Notre Dame Island of the Seine; La Charité, rue de L'Universite and rue St. Pres, S. S. Seine; Laennec, rue de Sevres 47, near Bon Marche, S. S. Seine; Necker, rue de Sevres and ave de Saxe, S. S. Seine; Lariboisiere, rue Ambroise Pare, near Gare du Nord, N. S. S.; Maison D'Accouchement, rue St. Jaque and Boul. Port Royal, N.S.; De la Pitie, rue Geoffroy and rue Daubenton, North Side; Hôpital St. Louis, rue de la Grande and rue St. Louis, North Side; Ophthalmic Rothschilds, rue Manin and rue Priestly, N. S., Buttes Chaumont; Clinique du Dr. De Wecker (Successors), No. 55 rue de Cherci Midi, S. S.; Clinique du Dr. Landolt, rue St. Andrea des Arts 27, South Side Seine.

As above remarked, the municipal hospitals are entirely for the poor. Private cases are sent for operations to institutions called Maisons de Sante—sanatoriums. These are usually presided over by Sisters of Charity and take their name after the guild or title of whatever may be the order to which they belong, e. g., Maison de Sante du Sacre Coeur de Jesu, No. 157 rue de Sevres, S. S. These places all have well equipped surgeries and plenty of nurses, who adapt themselves readily to the ideas and the whims of the operators, and they are seldom changed. There are always on hand one or more "garçons de salle." This person is a man different from our steward and different from our porter. He is always physically strong, active and alert. He is never permitted to aspire to be anything else. Consequently he is not a student of medicine in any sense of the word, although after years of service he learns with his eyes sometimes more than the students.

At the Ecole de Medecine they give a very fine course of clinical instruction in operative surgery both on the cadaver and on the living subject. During the time I was there the clinic in the department of the nose, throat and ear lasted from 3:30 or 4 till after 6 o'clock every day, and the waiting rooms were crowded.

This operative course consists of tympanic surgery—paracentesis, tenotomy, removal of ossicles, mastoid operations, trephining for lateral sinus, cerebellar fossa and cerebral fossa, jugular ligation, etc.—the removal of turbinates, submucous resection of septum, opening maxillary sinus, same frontal sinus externally and from within, the removal of tonsils and adenoids, sphenoidal and ethmoidal exenterations, laryngotomy, pharyngotomy, esophagoscopy and such operations.

The professors at this clinic are Drs. Caste, Boncourt and Rabbe. The courses are open to native and foreign physicians as well as to the matriculants of the university. There is also at

Laennec a very fine oto-laryngologic clinic every morning from 9 to 11, conducted by Dr. Lombard. Then at Opital St. Antoine, rue de Foubourg St. Antoine, there is an oto-laryngologic clinic by Dr. Larmoyez daily from 10 to 12, and at the Lariboisiere Hôpital, near the Gare du Nord, Dr. Sebillieu has a very large nose, throat and ear clinic, assisted by Dr. Le Maitre; very fine.

The aseptic pavilion and operating rooms at the Eye Hospital, called de Rothschilds, deserve more than a passing notice. I have related elsewhere (*loc. cit.*) in a former letter how Baron Adolph de Rothschilds, as a tribute to the memory of his mother, left in the year 1900 an endowment of \$1,400,000 with which to build in the city of Paris a free eye and ear hospital for the poor of all nations. Also how he set apart \$62,500 additional endowment annually, to be known as an income, to pay the expenses and the upkeep of this institution. Last year they had 36,000 new patients. They have a daily clinic from 9 to 12 a. m. and their operating days are Wednesdays and Fridays, also from 9 to 12 a. m.

The present staff are Dr. Dupuy-Dutemps, chief of staff; Dr. Rochon-Duvigneaud, Dr. Millee, Dr. Vigier, Dr. Willomont and Dr. Polack, consultants.

The lamented Trousseau, writing about his care and his endeavors to accomplish out of this great donation the greatest good to mankind, said: "The rôle of the operator is certainly the most brilliant, the most agreeable for the ophthalmologist, and the temptation is certainly very great to build such an institution with the sole object in view to receive only operative cases. But bearing in mind the intentions of the testator that he desired an establishment designed for the treatment of all kinds of diseases of the eye, and that it might be of the greatest use to this class of suffering and helpless humanity, and bearing in mind the great numbers of patients which crowd the clinics running from one hospital to another, receiving slight hygienic care if any, and maintenance at none of them, the chronics afflicted with granulations, capable of infecting others, and thereby lessening the good results in other patients which their presence might affect, the chronic lachrymal cases, the hypopions, the neonatorum cases, all more or less out-door patients, unable to receive housing and strict antiseptic attention, the determination at once was made to devote at least a third of this munificent charity and of this building to the service of this almost neglected class of unfortunates."

There are, therefore, in the aseptic service 36 beds, 8 for males and 4 more isolated in rooms;

8 for women and 4 more isolated in rooms; for children, 6 for boys and 6 for girls.

In the septic service there are 26 beds, for men 8, for women 8, and isolated, male 2, female 2, and neonatorum "boxes" 10, besides a septic pavilion for contagious cases across the outer court.

The operating hall and its wards are virtually in a separate building. They are across a wing of the hospital, yet easy of access for the surgeons and the visiting doctors. The arrangement for the daylight for the operations is from a window from the side instead of overhead, an advantage which every experienced operator on the eye will appreciate. The boxes (chambers) for the neonatorum cases are made entirely of glass and porcelain walls and ceilings. Each box also contains a bed for the mother, and besides a cot for a nurse, as well as a crib for the baby.

The amount of surgical work which one may see in Paris if he goes about the matter systematically may be estimated from the following. During the time I was in attendance, on the cataract days the number of cataract operations were never less than 10, and on most days went from 12 to 18. Of tear-sac operations there were from 6 to 8. Of squints all the way from 3 to 6. Of lid operations every operating day was proportionately full. In the nose and throat clinics on tonsil days there were generally not less than 30, and sometimes as high as 45 tonsillectomies and adenoid operations. On mastoid days there were generally 3 or 4 mastoid operations in one morning. Cosmetic operations on the face and operations on the larynx were proportionate to the others in same ratio.

Without previous knowledge, it takes from two to three weeks to learn the times and places and the classes where the operative surgery is going on, after that the principal trouble will be to keep up with the operations without having the hours conflict from day to day in the different sections of the great city.

At this point I ought to mention also the names of some of the hospitals and clinics, and give some of the hours of operations in the city of London. This may seem useless to some of the readers of *THE JOURNAL*, but those members who have gone abroad and have met with anything like the experience I seem to have had will bear me out in the statement that time, time, is our constant cry. When we are in a strange city we all know that there is lots of surgical work going on if we only could find it. We lose days and days, yes weeks, before we learn the whereabouts, the time and the men who are doing operations we wish to witness, and many of the best ones we

lose entirely simply because no one will tell us where to go and whom to see. This list cost about thirty dollars and something like three weeks of my time to obtain, and I feel sure that those who contemplate a trip abroad, if they expect to see London, will find it well worth their while to preserve it.

LIST OF LONDON HOSPITALS

Charing Cross Hospital, Agar Street Strand W. C. (West Center).

Guy's Hospital, London Bridge S. E.

King's College Hospital, Portugal Street Lincoln's Inn Fields W. C.

St. George's Hospital, Hyde Park Corner S. W.

St. Mary's Hospital, Praed Street Paddington W.

St. Thomas's Hospital, Albert Embankment S. E.

University College Hospital, Gower Street W. S.

Westminster Hospital, Broad Sanctuary S. W.

Hospital for Consumption and Diseases of Chest, Brompton S. W.

Hospital for Sick Children, Great Ormond Street W. C.

London School for Tropical Medicine, Greenwich, Albert Dock Connaught Road E.

Nation Hospital for Paralyzed and Epileptics, Queens Square W. C.

Royal London Ophthalmic Hospital (Moorfields) City Road E. C.

St. Marks Hospital for Diseases of the Rectum, City Road E. C.

St. Bartholomew's Hospital, Smith Fields W. C. near Post-Office.

Medical Graduates College and Polyclinic, 22 Chenies Street, Gower, W. C.

Royal College of Physicians, Trafalgar Square.

St. Luke's Hospital, Old Street, City Road, E. C.

SOME OF THE CLINICS

Mondays—Medicine: Charing Cross, Mr. Hunter, Mr. Fenton, Mr. Bruce X-ray, Finsen Light, Guy's Hospital, Hale, White, Pitt, Cooper, Mr. Irdell X-ray; King's College, Dalton, Turner, White, Reed, Mr. Perry X-ray; St. George's, Latham, Gotta, Hartley; St. Thomas', Hawkins, Perkins, Cassidy.

Tuesdays—Surgery. Operations: Charing Cross, Evans, Boyd, Stonham, Daniel; Guy's, Symonds, Hughes, Land, Dunn; King's, Cheyne, Cheatle, Marrow, Maynard, Smith; St. George's, Ruddelberry, English, Blanche, Corner; St. Thomas', Robinson, Battle, Wallace, Fedden.

Wednesdays—Medicine: King's College, Crawford, Briscoe, Wilford, Harris; St. George's, Ogle, Blake, Caley, Miller; St. Thomas', Timburg, Buzzard, Hurtz; University College, Sidney, Martin, Russell, Elliott; Westminster, Hebb, Macnamara, Irdell.

Thursdays—Surgery. Operations: Guy's Hospital, Symons, Land, Dunn, Tripp; King's College, Dalton, Turner, Wiltschire; St. George's, Jaffrey, Lane, Maynard, Smith; St. Thomas', Ballance, Nich., Evans; Westminster, Stoneheim, Evans.

Fridays—Medicine: King's College, Dalton, Turner, Wiltschire, Hartley; St. George's, Collier, Golla, Wilcox; St. Thomas', Cassidy, Daniels, Hawkins; Westminster, Murrell, Stewart, Reid.

Ophthalmic. Eye; daily London Royal Ophthalmic Hospital: Sir Jonathan Hutchinson, Sir Jno. Tweedy,

Warren Tay, Edw. Nettleship, Stanford Morton, Sir Jas. Mackenzie, Sir Jas. Taylor, Wm. Lang, E. Treacher Collins, Spicer, Percy Flemming, J. H. Fisher, Arnold Lawson, Claud Worth, J. Herbert Parsons, Devereux, Marshall, Malcolm, Hepburn. Operations daily from 10 to 12 a. m. Out-door clinics daily from 8 a. m. to 1 p. m. This hospital receives 400 out-door patients and 100 in-door patients daily every day except Sunday. It is supported entirely by contributions and is free, but only for the poor. Those who are able to pay a surgeon are not admitted. An officer has been employed since 1893 to prevent, as far as possible, the abuse of this charity.

Ear, Nose and Throat: Mr. Cheatle, Mr. Jenkins, Mr. Tilly, King's Col. Monday, Wednesday, Friday; Bull, Hill, Graham, St. Clair, Thompson, Charing Cross, Tuesday, Thursday; Dundas, Grant, Howarth, operations St. Thomas, Tuesday and Friday; De Santi, Tilly, Dan Mackenzie, Westminster, Thursday, Saturday; Cathcart, Sidney, Stevenson, Hastings, Guy's, Wednesday, Saturday.

Genito-Urinary: Mr. Thompson, Guy's, Wednesday; Mr. Fedden, St. George's, Thursday.

Nervous System: Dr. Taylor, National Hospital, Monday; Harris, St. Mary's, Tuesday; Hurtz, Guy's, Wednesday. Special Courses, National Hospital, Tuesdays. Special Courses St. George's, Thursdays.

Children: Cameron, Guy's, Mondays; Still, King's, Monday; Lane, Children's Hospital, Tuesdays; Garrod, Wednesdays; Galloway, Charing Cross, Thursdays; Hutchinson, Saturdays.

Gynecology: Mondays, Guy's, Taggett; King's, Phillips; St. Thomas', Dakin, Tuesdays; Charing Cross, Routh; Guy's, Sir Thomas Tate, Smith; Wednesdays, Charing Cross, Eden; Westminster, Robinson; Thursdays, Guy's, Bellingham Smith; St. Thomas', operations, Fridays, St. Thomas', Tate; St. Mary's, Hanfield, Jones; Saturdays, Charing Cross, Eden; University, Spenser.

Skin Diseases: Charing Cross, Mondays, McCloud; Tuesdays, Cooper, Perry; Tuesdays, Guy's, Sit, Cooper, Perry; Wednesdays, Colecott; Thursdays, MacCloud; Westminster, Fridays, Galloway, Charing Cross.

Practical Classes at Medical Graduates Polyclinic: Anesthesia: Sir J. O. Mortimer, F.R.C.S., price of course \$10.

Clin. Ex. Nervous System: Sir Henry Campbell, F.R.C.S., about \$5.

Clinical Microscopy: The Official Pathologist, \$5.

Physical Diagnosis: J. S. Squire, F.R.C.P.; Sir Theodore Thompson, F.R.C.S.; Dr. J. Langdon Brown, \$5.00.

Clin. Ex. of the Heart, Incl. Polygraphy: F. W. Price, F.R.C.P., \$10.

Cystoscopy: J. W. Thompson Walker, F.R.C.P., \$15.

Electro-Diagnosis and Therapeutics, \$10.

Intestinal Surgery, J. Jackson Clarke, F.R.C.S., \$10.

Laryngology: J. Gay French, \$5.

Massage: J. Fletcher Little, \$5.

Ophthalmology: R. E. Bickerton, Agnes McNab, \$5.

Otology: W. H. Kelson, Dan Mackenzie, \$10.

Rhinology: W. Stewart Lowe, \$5.

Roentgen Rays: F. Harrison Lowe, \$5.

Surgical Anatomy and Diagnosis: J. M. Swainson F.R.C.S., \$5.

Tutorial Classes for the Higher Examinations—

Medicine: C. O. Hawthorne F.R.C.S., about \$25.

Surgery: J. M. Swainson F.R.C.S., about \$25.

Midwifery: Jas. Morrison, M.D., \$25.

Private tuition in Ophthalmology, Laryngoscope, Cystoscope, etc.

We remained in London until the first of August. The time was occupied quite as profitably and as pleasantly as that we spent in Paris. The immense distances necessary to cover in getting about at first almost appalls one, but it takes only a few days for that impression to fade. Getting about from place to place is accomplished with surprising facility, and at very reasonable cost. Taxicabs are to be found at almost every corner and are fairly cheap, to say nothing of the great underground railroads and bus lines, which latter really afford the best opportunity of all methods of travel of seeing London as you pass.

The amount of surgical work going on in London all the time is very great; the only difficulty apparently is to find it. This is the difficulty everywhere. While in Paris I had the good luck to meet at one of the nose and throat clinics the head of the staff in the otological department of St. Bartholomew's Hospital, Prof. Sidney Scott, who invited me to come and visit his clinic as soon as I came to London, and I did so. He introduced me to Dr. Rose of the throat department, and they both were very courteous to me and showed me a great deal of their work. Dr. Scott in his mastoid operations combines skin grafting with the thorough exenteration of the mastoid area after the radical operation. This he does even in those cases where he leaves a portion of the drum and the ossicles, especially the stapes. He takes a very large skin flap from the thigh of the patient. This is floated on the top of some water in a bowl and then conveyed to some thin gauze with the dissected side outward. After drying out the entire cavity, the gauze is pushed down to the bottom of the operated cavity and spread out in such a way that the entire surface is covered by the skin graft like a plaster dressing to be held in place by the packing. Many of these skin grafts attach completely by first intention. In a few days I have seen some of them looking fine after the removal of the gauze.

The work of Dr. Rose, especially on tonsils, was very interesting to me. He performs about twelve operations, tonsillectomy including the removal of adenoids, in an hour, averaging, I think he said, five minutes to each operation. It takes very much longer to dissect out the tonsil with scissors, besides in that operation he says he has more hemorrhage. The cases are anesthetized in advance by assistants in the next room, placed on operating tables three in a row, and they are likewise removed from the operating room in the same manner by other assistants.

This operation is done with the McKenzie tonsillitome, modified to suit the plan on which he bases his procedure, which is to cause the capsule of the tonsil, instead of being cut, to be pushed before the blade of the instrument, thereby shelling out the tonsil like a nut out of its hull. The aperture or window of the instrument is oval and it is transverse to the axis of the blade, and it must be just enough smaller than the tonsil to require the operator to press with his index finger the gland through the opening. He holds the instrument in the hand corresponding to the tonsil operated on, and with the back of the instrument toward the tonsil. For instance, if it is the right tonsil to be operated, he takes the instrument in his right hand, places the back of the blade against the tonsillar fossa, and then with the index finger of his left hand he goes in and shoves the tonsil down into the ring by pressing directly against the anterior pillar. If it is the patient's left tonsil the exact reverse method applies. Once in the ring, which is designedly too small instead of too large, the tonsil can not get back. Then he presses on the blade with both thumbs and the edge seems to slip right around past the faucial margin of the pillar and go right in and around the thing like you were scooping up a large pebble out of the ground with a spoon. The tonsil comes out entire with the capsule turned wrong side out over the gland. Of course there must be a series of instruments with larger or smaller openings to suit the cases. I think herein lies part of the skill in being able to select the right sized opening to fit. I observed another thing—a thin hand, a good long slender index finger is a very useful addendum.

I had intended to describe in this letter the conservative mastoid operation by Charles J. Heath of London, but this is already too long, so will defer that till another time.

THE TRUE PHYSICIAN *

CHAS. A. WHITE, M.D.
DANVILLE, IND.

Ladies and Gentlemen:—I thank you for having conferred on me the compliment of electing me to the presidency of this honorable Association. My only regret is the consciousness of my inability to reflect fittingly the honor you have bestowed.

As a basis, in part, for what I have written for this meeting I desire to relate briefly an incident

* Presidential Address delivered before the Seventh Indiana Councillor District Medical Association, at Martinsville, Dec. 12, 1912.

which occurred very early in my professional life. In February, 1868, when barely 23 years of age, I began the practice of medicine about eleven miles south of this city, and equidistant from the city of Bloomington. On the twenty-eighth day of that month I made my first professional visit. The patient was a man, and the head of a large family. My diagnosis was pneumonia. I prescribed; gave directions; stated that I would return the following morning, and departed. I presume that my youthful appearance, my known inexperience and the gravity of the diagnosis caused some anxiety in the household, for soon after my departure a messenger was dispatched for Dr. Joseph G. McPheeters of Blomington, who promptly responded, and was soon at the bedside of the patient. His diagnosis, also, was pneumonia. He prescribed, gave directions and was about to depart when he learned that I had been there that morning; that my diagnosis was pneumonia; and that I was expecting to return the next day. Whereupon, he examined the medicines I had prescribed and putting his own medicine in his greatcoat pocket, said, let Dr. White continue treating the patient. He understands the case as I do.

Ladies and gentlemen, this magnanimous, generous, manly recognition and indorsement, coming from one whom I had never met and who was my senior by many years, filled my heart with gratitude and made a profound impression on my mind; one that has ever been a pleasant memory and often times has served as a beacon light leading me aright in my professional relations. I revere his memory and commend the example as worthy of emulation.

While I may not be the oldest physician here, yet I certainly am not the youngest. And it is to the younger members that my remarks, in the main, are addressed. Nowhere can the old adage, "In union there is strength," be more appropriately used than in its application to medical organization. This motto should be symbolized, and the symbol should occupy a conspicuous place in the office of every physician as a reminder of his duty to become a member of appropriate medical associations.

Every competent, progressive, moral physician should be identified with the county, district and state medical associations. In no other way can he so certainly maintain the scientific knowledge and professional standing he possessed at the moment of his graduation, much less add to them. In no other way can he secure the greatest possible confidence of the community where he resides. In no other way can he obtain and enjoy the fullest fellowship of his medical brethren.

In no other way can he become so confident in diagnosis and so certain in his ministrations to his patients. In no other way can he so fully discharge his duties to the public as a factor for the betterment of the profession and the welfare of the commonwealth.

Outside of a medical society he stands like a lone, though well-drilled soldier, without the equipment for battle. He must meet the enemy only to meet disappointment and perhaps defeat.

He should not only be a member, but should be a live, active member; ready at all times to lend his influence toward the uplifting of the profession and the strengthening of its capabilities for good and helpful work in every way possible. True, he may not possess the inclination, nor enjoy the opportunity of doing as much as others do who are more favored, but he can do something; if nothing more than give indorsement to the organization by attending its meetings and becoming acquainted with what is being done. I am loath to believe, however, that there resides a physician in this councilor jurisdiction who cannot, by proper effort, prepare and present an interesting and instructive paper to the Society. Remember that it is through the untiring effort of individual physicians and the well-directed power of efficient organization that all the important medical legislation which we now possess has been secured. Every citizen is a beneficiary of this legislation. To attempt to enumerate the benefits and achievements derived from these laws would be almost impossible and quite unnecessary here. Legion is their name and untold wealth of happiness their value.

Then let whatever influence one may have be directed into the channel that will lead to the very best results. Much has been done. Much yet remains to be done. The burden is on us. The physician must lead and legislators must heed.

While advocating thorough organization, yet I believe it unwise to urge the enrolment as members of two classes of physicians. First, those who are totally indifferent to medical progress. They will do little or nothing for the society, and the society can do but little for them; yet they are the most likely to need and the most loudly to claim its benefits and protection. Second, those known to be highly immoral—and I am sorry to admit that such there are—no matter what their education, scientific attainments or activities in the community. Recent requirements of medical schools for higher education have materially raised the professional standard. Why then not demand a correspondingly high moral rating. A highly educated person may be a moral

leper and capable as such, when wearing the badge of membership of doing far greater harm than he otherwise could do. We must not forget that the public holds our societies more or less responsible for the conduct of the members. We cannot reform them nor can we afford to harbor and thus bestow respectability on these professional, moral monstrosities.

The true physician rates self-interest subservient to the public welfare. This sometimes seems hard indeed, but for humanity's sake the public demands it and under certain circumstances the state may enforce it.

In his various relations the physician occupies a somewhat unique position, and by reason of this fact there is but one way in which he can possibly walk to discharge properly the peculiar and manifold duties incumbent on him. And that way is the way of simple truth and honesty. In former times it was thought that the truth should not always be told; that a sort of medical sophistry exempted physicians from always telling the truth. Temptations to misrepresent, if not to actually falsify, are, indeed, of frequent occurrence to this day, and sometimes challenge the physician's probity to the utmost. After all, however, the plain truth, skillfully imparted, will often prove of inestimable value to patients and their friends when shallow indications might lead to the belief that it would result in irreparable injury. The true condition of a patient, however grave, can usually be conveyed by the avoidance of anything that might produce a false impression. Patients, as a rule, realize quite well the physician's position in his effort to be candid. They do not expect, nor require, more of him than frankly to explain existing conditions; to render an opinion as to the best course of treatment and the best possibilities regarding prognosis. In this way the physician may gain the fullest confidence of the patient—a most important factor—which could be gained in no other way, or, if gained, could not be long retained when it is found that important facts have been withheld for the purpose of deceiving and misleading. To a confiding patient the truth can always be told and will be appreciated. To an unconfiding, suspicious patient it matters but little what we tell him as he will suspect us of mercenary intentions whatever we may say or do.

The best course, in all cases, is to remember and to practice the golden rule as enunciated by the Saviour.

The practice of medicine is quite different now from what it was in former times. Even when I

began, only forty-four years ago, among the common people, ignorance and superstition prevailed to a great extent. Now they are better informed on many important questions pertaining to medicine and are able intelligently to ask us questions which must be intelligently answered. They are reading and thinking as never before. Daily and weekly papers, weekly and monthly magazines, containing valuable information and loaded with attractive, worthless advertisements, are eagerly read by both young and old. In this way they have already learned much concerning the causes, prevention and treatment of disease. Serum therapy, x-ray diagnosis, disinfection, sanitation and hygiene are common topics of conversation among the people who have thus become quite competent to estimate correctly the merit of the physician, and to make a correct rating of his standing. If he prove competent, faithful and honest he will win their respect and confidence and can then render most valuable service to the community and add materially to his own well being.

If any physician has become such from a mercenary or purely money-making purpose, I pity his judgment and beseech him not to further defame the profession by remaining in its ranks, but to seek other fields better suited for his purpose. I hope and believe there is none such in this Association.

We should ever remember that we are dealing with those who are sick; who are no longer able to help themselves. The patient comes to us saying, Doctor I am sick; I need help. I believe you can help me. I have confidence in your professional capacity and in your integrity. Take me as I am. Do for me the best you can. I am in your hands as clay in the potter's hands. I shall trust you to the end.

Ladies and gentlemen, the physician who would not, under such conditions, prove absolutely faithful is unworthy the name. It is otherwise, I grant you, when dealing in material things, with those not sick. If in an ordinary business transaction by reason of better judgment, superior knowledge of values or a clearer insight into future conditions, you should apply David Harum's version of the golden rule and do unto the other fellow as he would do unto you, but do it first, you would be held blameless; indeed, you should be congratulated.

In former times, diseases, especially destructive epidemics, were often attributed to the vengeance of an offended God. Indeed, there may yet be found persons who cling to this super-

stitious notion and believe that disease cannot be averted by human agency. To the sanitarian of the present time nothing is more absurd. To him it is no less than downright profanation to hear the name of God referred to as being directly responsible for the production of diseases known to be preventable, yet allowed to exist only by reason of human indifference. The enormous loss of human life resulting from exposure to known causative agencies, neglect to immunize against small-pox, diphtheria, tetanus, hydrophobia and typhoid fever as well as from rotten bridges, open switches, broken rails, defective boilers, drunken employees and other similar causes should never be attributed to special dispensations of Divine Providence.

When we realize that the natural lifetime of man, compared with animals and birds that usually die of old age, should be at least 100 years, and that so few reach that mark and so many die in the morning of life, we, in astonishment, ask, why is this? The inevitable answer is, we do not live right. Either we do not know how to live or we do not endeavor to so live as to live best and live long. Instead of old age being recorded as the most frequent cause of death, as it should be, it is well nigh the most infrequent cause. All persons who ignore the oft demonstrated fact that the most frequent and destructive diseases are preventable, and who disparage the propaganda to eradicate them; legislatures and councils who refuse to enact health laws and to appropriate money to combat communicable diseases; manufacturers of adulterated foods and medicines; those opposed to general sanitary inspection and the medical inspection of school children; employers who overwork men, women and children, under dangerous and unhealthful conditions; landlords who rent unsanitary houses and rooms; promoters of various and useless pathies, isms and fake cures; parents and guardians who neglect and abuse their dependents; incompetent and indifferent physicians and scores of others are directly responsible for the present rather high death-rate.

In the crusade against disease and the untimely cutting of the thread of life by the relentless Atropas with her cruel shears, every true physician should be enlisted, and should be found assisting the faithful Clotho to hold the distaff and to draw the precious thread, while the loving Lachecis with untiring hands endeavors to increase the length of the spinning.

THE RELATIONS OF THE SPECIALIST TO THE PRACTITIONER *

AMOS CARTER, M.D.
PLAINFIELD, IND.

The day of the specialist in medicine and especially the special specialist is rather recent. He has wound his way into the ranks by avenues largely of his own making.

Originally, we had the practitioner of medicine and surgery; then the physician and surgeon. Then came the ophthalmologist, otologist, obstetrician, gynecologist, throat and nose, rectal, genito-urinary and abdominal surgeons, and lastly, the consultant enters the field of medicine. The dermatologist has existed for a long time but he has been so badly tangled up in the dictionary and so few skin diseases ever border on fatal termination, that the old saying "what cannot be cured, must be endured," seems to have hung as a cloud over his oblivion. However, when you get plumb "up a stump" you gladly refer your patient to him and although a rare bird, he is often greatly appreciated, and his knowledge of the medical dictionary gives you solid ground on which you can stand, and when he names your mystery, you can go to your latest on skin diseases, which is usually of not very recent date and post up.

The time was when the specialist was supposed to be a man who had enjoyed a ripe experience in general practice, and, after some years took up a special line. By virtue of a gradual growth in his line he became known as unusually qualified and was called upon with the understanding that he could, would and did comprehend the whole case with any and all complications. He found favor with the profession and with the laity. He sought to keep the attending physician, who is expected to retain the case, in close touch with the patient and follow up the specialist's ideas faithfully. In the days of the origin of the specialist, he stood squarely by the "code of ethics," which code expressed in few words was simply the "Golden Rule."

This condition evidently prevailed for a time, but the specialists got more numerous and began to cast about for a larger field and accepted work from irregulars, which proved the open door leading into the ranks—a larger recognition of the rights of all schools of medicine.

The general practitioners were very generally unable to see the justice in such recognition, believing firmly that all new discoveries should be given to the profession for crucial tests neces-

* Read before the Seventh Indiana Councilor District Medical Association, at Martinsville, Dec. 12, 1912.

sary to adoption or rejection, based on merit. The homeopath rode in on the high seas of millionth dilutions, with suggestive therapeutics in the hold of his vessel, hidden from public gaze and possibly undiscovered by a majority of himself; the eclectic blindly eliminating in public many of our most efficient drugs, but carrying enough of them in the bottom of his pill bag to tide him over disaster that his limited lot could not bridge; and the physio-med, ringing in the vision of Thompson, the good old New England farmer, saw in his mind's eye the poisoned fangs of the serpent carried in the vials of the regular. The specialist harkened unto the helplessness of all of these ismites and went forth at the beck and call of suffering humanity, violating the letter of the code, but saving life. Thus we see a crown on this phase of the specialist's career and are loth to criticise him for his breach of the code, but the snake he killed isn't dead yet, and now in the wake of the vessel which carries the homeopath into port floats the phantom of osteopathy with suggestive therapeutics hidden in the palm of his well-manicured hand, but the specialist will "get him, if he don't watch out."

The general practitioner sometimes speculates as to whether there is another side to the specialist and feels that he may have the right to draw and present the picture. Most specialists get rich, are able to make frequent trips abroad, and by virtue of new knowledge gained, gather new laurels and more shekels as fruits of each trip. The general practitioner hammers away in his own field, being dependent on Davis, Lippincott, Appleton, Saunders, *The Journal of the American Medical Association* and other medical publications for his fits of new energy.

The specialist will go out on a call, in consultation, and considerably make a fee of twenty-five dollars in three hours' time, while the general practitioner has spent three hours daily, for eight days, in pushing his bill up to the same amount. Not only so, but in a vast majority of cases the diagnosis is already made and the line of treatment is suggested, but the specialist verifying diagnosis and endorsing treatment, with such additions as he may feel justified in making, inspires confidence in the attendant, patient, family and friends. Right here is a point to consider. Is the general practitioner getting enough relatively for his faithful efforts, or is the specialist getting too much? But we will get to that a little later.

We will suppose our patient one requiring surgical and medical treatment. As a general practitioner, I suggest that it is a surgical case,

more or less out of my line, that the specialist should be called and time, place and method left to him. He decides. Does my responsibility end here? And is it wholly up to him? Now I am going to contend that his specific place, attitude and purpose, is surgical; that for his own protection and the patient's, and my rights, since I aid in the decision as to diagnosis, necessary operation, the patient's ability to stand it, and am responsible and must answer to patient, relatives and friends for the outcome, I am expected to be present at the operation by both specialist and patient, to inspire confidence, share responsibility and report results. Should joint effort end here or should it continue throughout convalescence? I protest giving up entire care of the case during the hospital treatment, and then assuming the case entire and taking full responsibility when further treatment is necessary. When the patient leaves the hospital, returns home and complains of several kinds of pains and aches, that are new to his anatomy, it certainly taxes the ingenuity of the general practitioner to diplomatically explain the few, or many reasons why the specialist left all these streaks of remaining disease in him, when it was supposed that he took everything out that could be harmful, painful or detrimental to the natural exercise of all functions of the parts.

In order to keep in touch with the specialist's new methods, fads and fancies, the general practitioner must have patients operated on rather frequently or he will not be able to recognize the change in styles when they occur. For instance, a few years ago the throat man took his tonsillotome and shaved off enough of the tonsil to give his competitor a chance for another shave, and in no very great lapse of time, and this was at about twenty-five dollars per shave. Now that is all changed and the tonsil is dug out, root and branch, for about fifty dollars, with no chance left for a rival to get a "look in." Better operation, same price, but it emphasizes the necessity for the general practitioner's vigilance, if he would know what to tell his client is going to happen. Then again, any one can use a tonsillotome, but it takes more nearly an expert to dig the tonsil out.

I am rather inclined to urge a more intimate association of physicians and specialists, and recommend that the physicians visit the hospitals more frequently and get more familiar with the work being done in them. However, this is more or less a delicate proposition, for there is a sort of dividing line between professional courtesy and the rights of private patients. Possibly physicians do not seek acquaintanceship

with hospital work as they should do, and as they might, since so many of us are located on interurbans and could easily avail ourselves of such opportunities. Our Indiana University has broadened to such an extent that it might be an easy matter for us to get much clinical and surgical observation, if we would embrace the privilege. Possibly we could form classes and make arrangements for a day or so each week, to visit clinics and benefit ourselves and feel like we could make ourselves welcome by paying reasonably for the opportunities.

Thirty or forty years ago, it is safe to say, the ophthalmologist recommended in about 75 per cent. of all eye troubles a 2 to 10 grain ointment of yellow oxide of mercury, and the laziest and most incompetent graduate could not have made a mistake in prescribing it for all cases in more than 25 per cent. at most. Now a saturated solution of potassium iodide internally and some per cent. of argyrol, seems to have superseded the yellow oxide ointment. This may seem a little irrelevant, and possibly somewhat undignified, but even the specialist has his limitations and doubtless very often finds himself "up a stump" same as we fellows, and under such circumstances does as we do, gives or uses something that he knows can do no harm, even if it does no good, and is showing willingness to do the very best that he can.

There are two or three fields of surgery which do not seem to have any very definite dividing lines. The general surgeon seems to have nothing left in his territory except to work on the outside. The abdominal surgeon has seemingly put one over the surgeon and gynecologist, and here is where I am lost on geographical lines. Of course the genito-urinary man holds the floor, background and external genitals, with a very visible line between himself and the abdominal man. The abdominal man seems to claim for himself the whole region from the diaphragm to the floor of the pelvis, including the genital organs and must include everything gynecologic, for he trims up all defects he finds, whether intended or not in the original design.

Now as to the fee end of this rambling arraignment. The specialist gets good fees because he demands them, and the general practitioner gets small fees because he doesn't ask larger ones.

As to whether the specialist and general practitioner should bear closer relations to each other in the management of cases, will bear some discussion, and possibly with profit to both. I believe a closer relationship would be beneficial to both, and to the patients as well. The general practitioner is usually well acquainted with

the peculiarities and weaknesses of his patient, and the friendly cooperation might be of great advantage to him. I think it just to the general practitioner and patient that he keep in close touch with the case, and when the patient leaves the hospital and comes wholly under his care during the convalescent period, he will be better able to guide him to a more speedy and sure recovery. I believe that if such arrangement is considered feasible and beneficial, the first move will have to be made by the specialist, in a request to the patient for such association, since custom has made the reverse course of conduct. I am pleading for the obliteration of the line that divides the general practitioner and specialist, which is really largely imaginary, for the benefit of all concerned, considering the welfare of the patient, and not especially from the pecuniary point of view.

Of course location must have much to do in the conduct of cases but since time and space are so nearly obliterated by interurbans and automobiles, a very reasonable association can be arranged for any and all localities.

The day is not very distant when nearly all counties will have hospitals in which major operations may be done, thus having patients in reasonable distance of their homes, and I believe this is as it should be. Hospitals are educational, and necessary as well, and should be more generally distributed, emphasizing more positively the scientific side of medicine and surgery. In this day of general enlightenment, when disease prevention is being taught in our schools and less sickness is encountered, it behooves all physicians to strive for greater and broader competence in all lines.

DR. EDWIN WALKER's letter, published in this issue of *THE JOURNAL*, throws an interesting light on the alleged cancer "cure" of Dr. Odin, which receives such publicity at the hands of the American lay press. The pity of it all is that the newspapers will give publicity to fakes and swindles, and that the public patronizes the swindle with the resultant fattening of the pocket books of the promoters. And this reminds us that we are not willing to believe that the new Friedmann consumption "cure" is free from the rankest commercialism, and in the end will be proven to be a game originated and carried on with the sole purpose of pecuniary gain. In fact, at this writing, the newspapers make the statement that Dr. Friedmann has accepted an offer of one million dollars for his "cure" and that he is on his way to New York to demonstrate its preparation and use.

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EDITORIALS

RECENT PROGRESS IN THE STUDY OF
NEPHRITIS

Up until the last decade it had been thought that the study of medical diseases of the kidney had about reached the end of its progress, and that when it was recognized that the sharp differentiating line between a parenchymatous and an interstitial process could not be drawn, we had about concluded that we had reached a safe working basis for the treatment of renal disorders.

As a matter of fact, if we are now to credit as correct the more recent researches of Widal, Castaigne, Achard, Javal, Ambard, Albarran and others, we must completely revise and revolutionize our ideas concerning some of the fundamental principles of renal pathology.

Bearing on this subject, Austin¹ has recently declared that the man who graduated only fifteen years back and had paid little attention to kidney diseases since that time, would find himself in an entirely unknown field were he now to pick up the most recent French monograph on nephritis. In fact, he asserts that such a one would be obliged to begin by forgetting all that he had ever learned on the subject and take it up entirely anew. The first step in advance was made by Widal at the beginning of the century in his work on the action of faulty elimination in producing edema in certain forms of nephritis, as well as by demonstrating nitrogen retention in the blood. Numerous means were devised for testing clinically the filtering value of the kidney and the entirely new classification of nephritis was generally accepted. The old term "uremia" was given a new name and divided into altogether new forms. The important subject of treatment was completely revolutionized and put on an intelligent and rational basis to the relief of the medical man and the inestimable benefit of the patient.

The conception of the young French school regards the kidney as a common filter capable

or not of carrying out its proper function. If it does this it is called permeable, and if it fails so to do, impermeable, either plus or minus according to the degree of impairment. Thus the organ may even filter too freely, for instance it may allow substances to escape that are usually retained in the blood, as in the case when albumin appears in the urine; or it may not filter sufficiently, damming up in the blood and its outlets substances that normally pass freely through the filtering organs, such as chlorids or urea. Such defective filtering often reacts on the circulation, both the heart and arteries, producing degenerative lesions, increased tension, cardiac hypertrophy, etc. Basing their classification on this conception of renal function, they divided medical nephritis into four terms, namely, albuminous, chloremic, uremic and cardiovascular, each being susceptible of a variety of combination. It is well to state here that the term "uremia" is now used to indicate a retention of urea in the blood and not a general terminal state of nephritis preceding death.

Concerning the various functional tests of the kidney, Austin, who is, it may be remarked, a resident of Paris, rests content with the methylene-blue test, which he thinks amply sufficient for all practical purposes.

Should attention be attracted to the kidneys, say by the accidental discovery of albumin in the urine during some routine examination, the physician has to determine the efficiency of the renal filter; that is, whether there is chlorid or urea retention, and to explore the condition of the cardiovascular system as to degeneracy, high tension, hypertrophy, etc. An albuminous patient may be otherwise in an absolutely satisfactory condition and so remain for years. His filtration may be perfect to methylene-blue, his tension and heart normal, and there may be neither chlorid nor urea retention. Such a patient can, therefore, be allowed wide liberty in diet, requiring merely careful watching and retesting at regular intervals, but on the whole his lot is not altogether an unhappy one. Formerly of course he would have been restricted to an exclusively milk diet. Another patient with edema, perhaps, may be found with a large amount of albumin in the urine, headache, dyspnea, nervous symptoms, or convulsive attacks. The methylene-blue test is normal, cardiovascular signs are absent, amount of urea in the blood is normal, but the patient is found to be in a condition of chlorid retention, and such chloremic type is a common form of acute nephritis readily demonstrable by an accu-

¹ Med. Rec., Jan. 4, 1913.

rate determination of the excess of chlorids in the blood. When the sodium chlorid percentage in the blood exceeds the normal figure, Nature gets rid of it at once by pouring it out of the circulation into the interstitial and cellular tissues or into the cavities of the body. There it can be tolerated only by a given dilution, and hence attracts to itself the necessary serum, thus giving rise to the various forms of edema, anasarca, effusions into the peritoneal, pericardiac and pleuritic cavities or to the more insidious interstitial infiltrations of the brain, lungs or digestive tract. Such deeper forms may exist quite separately from the superficial visible forms and represent the basis of most of the clinical visceral symptoms of this condition, namely, headache, disordered sight, vomiting, dyspnea, etc., readily demonstrable by a chlorid reduction diet or lumbar puncture. Such a case of chlorid retention may be managed most satisfactorily and with hopes of prompt recovery by properly restricting the sodium chlorid intake. While the old milk diet was low in chlorids, yet its weak point was that an already overburdened system was subjected to an excessive intake of liquid. Now the patient may receive plenty to eat, indeed an almost luxurious diet, such as meat, fresh water fish, eggs, dried leguminous vegetables, cereals, herbaceous vegetables, fruit, milk and fresh cheese, so long as the minimum of sodium chlorid is utilized. While this lack of seasoning may render the food somewhat unpalatable in the beginning, yet substitutes for sodium chlorid, such as the bromid of sodium may be used temporarily until such time as the sodium chlorid allowance can be increased to the point of palatability.

The next form is probably the most interesting, both because of its relative newness and its great clinical importance, commanding as it does the entire prognosis in many cases of chronic nephritis. While in the albuminous, the chloremic or the cardiovascular types, the patient's outlook is at least temporarily good under a proper regimen, the appearance of urea retention is quite another story. In fact, these young French investigators feel that they can estimate with accuracy almost to the point of mathematical precision the definite prognosis as to life and comfort of a patient of this type from the measure of his urea retention in the blood. Unlike the sodium chlorid, the urea and its derivatives once prevented from passing through the normal renal filter, do not flow out of the circulation into the surrounding tissues, but remain in the blood or in the humors of the body, either normal or path-

ologic, and are found in like quantity in the blood-serum, spinal fluid, or in effusion into a normal cavity (pleurisy, ascites, etc.). The estimation of the urea from the blood requires about 10 c.c. of the serum, and such amount may be obtained either by wet-cupping or by the insertion of a needle into the vein. The normal percentage of urea per liter in any of these fluids is from .15 to .05 cg., and in the zone from .5 to 1 gram come the moderate cases of urea retention wherein the danger is not immediate. But from 1 to 2 grams denotes a serious condition with a prognosis as to life of not more than one year, while above 2 through 3 and up to 4, the survival is a question merely of a few weeks or at most months. While this estimation is beyond the capabilities of the average medical man, yet it is claimed that most any laboratory should be able to make the determination. Here, again, the question of diet is put on an absolutely rational basis, for whereas these patients may be termed dry, that is without any edema, liquids may be freely administered. But what they require chiefly is a nitrogen-free diet, or at least one wherein the nitrogen is markedly reduced. Such a diet consists of sugars and starches and is quite elastic, embracing such things as grapes and other fruits, potatoes, rice, and in fact, most any of the nitrogen-free foods.

The cardiovascular type being so familiar, Austin gives it little attention in this article, but passes to the consideration of renal insufficiency formerly called uremia. This he does not conceive to be in itself a morbid entity since there is always renal insufficiency whenever either of the two main forms of retention sets in, uremic or chloremic, and it is thus only a question of degree. The old term of uremia indicates merely the stage at which these conditions enter the danger zone. In the one, the dropsical form, the prognosis is infinitely less alarming than that of the other, namely, the dry and more insidious variety. The main clinical symptoms of this latter type consist in the watery urine with a relatively low percentage of albumin, anorexia, sometimes even to positive food repulsion, cerebral torpor, pruritis and retinitis.

For the treatment of the so-called uremic type, the author recommends starting with the Guelpa cure for from two to five days. This consists in an absolute water diet, with or without lactose, and a brisk purgation each morning. In the absence of an accompanying chloremia, a glass or two of a natural purgative water may be given, but if there is chlorid retention, scammony,

calomel or some similar non-salt preparation is more advisable. Following this the grape cure is given for a few days, as much as two to three kilos of ripe white grapes per twenty-four hours being given. Then there is established gradually the glycoamylaceous diet, the patient being given a clear conception of the seriousness of his outlook, and the relatives being warned as to the probable prognosis as gauged by the degree of urea retention.

This article impresses one immediately as light on a new field in our conception of nephritis. If these investigators are able to prove the correctness of their conception, we are given not only a more rational line of therapy, but a clear-cut idea concerning both the diagnosis and the prognosis of many obscure nephritides. It remains, then, for some careful investigator to elaborate a test sufficiently simple that the average laboratory man can make such urea test from a small amount of blood as will be absolutely reliable. The question of chlorid retention is one that is much more easily determined.

LYSOL AND THE COUNCIL

The question is often asked if, at times, the Council on Pharmacy and Chemistry does not refuse to admit articles to New and Nonofficial Remedies which have therapeutic value, and, if in such cases it is not the duty of a physician to give his patients the benefit of such a remedy.

Some time ago the *Journal A. M. A.* pointed out that the rankest nostrum might have therapeutic efficiency, and, as a hypothetical case, suggested that a mixture of quinin and starch might be sold with the most outrageously false claims and under a false and misleading name. It is needless to say that the Council would not recognize such a nostrum. Also, we trust, it needs no argument to convince anybody that a physician need not hesitate to deny his patients the "benefit" of such a nostrum.

The point at issue may be further illustrated by an actual example, Lysol, the widely advertised antiseptic solution, has not been admitted to New and Nonofficial Remedies. Being practically identical with *Liquor Cresolis Compositus*, it will be admitted to have some value as an antiseptic and germicide. Examination of a "25-cent package" of Lysol reveals at least one reason why the preparation is not eligible for New and Nonofficial Remedies—it is advertised to the public in an unwarranted and dangerous manner. A

reading of the report which discusses the extent to which the use of antiseptic and germicidal preparations by the public should be encouraged (*IND. STATE MED. JOUR.*, May 15, 1912, p. 231) will convince that the indiscriminate use of lysol is fraught with danger. The many cases of poisoning with lysol clearly show that the Council did its duty when it refused to endorse the lysol advertising propaganda.

Two arguments may be advanced for the use of the preparation, namely: that the name "Lysol" is more easily remembered than the official title, "*Liquor Cresolis Compositus*," and that the proprietary is liable to be more uniform. When the many cases of poisoning, accidental and otherwise, which have been and are being chronicled, are borne in mind, the first argument is too trivial to deserve consideration. As to the second point we do not think that it is valid. The preparation is not a difficult one to make, and there is no reason why a pharmacist cannot prepare it. Further, a pharmacist who cannot be trusted to make simple pharmaceutical preparations cannot be depended on to dispense lysol when it is prescribed. Besides this, the official preparation is sold by all large manufacturers, and therefore a physician may specify the brand which he considers trustworthy.

All things considered, we are firmly convinced that the medical profession will not be wrong if it follows the work of the Council on Pharmacy and Chemistry. For the Council, while not infallible, of course, studies these questions carefully and conscientiously, and is in a better position to judge them than any individual person.

THE FRIEDMANN CURE FOR TUBERCULOSIS

The Friedmann cure for tuberculosis has received much publicity at the hands of the lay press throughout the world, but the medical profession very justly continues to be skeptical concerning the value of the so-called "cure." Dr. Friedmann announced his discovery in a lecture before the Berlin Medical Society. He explained that the treatment consists of the injection of a solution prepared by himself, which he claims contains living non-virulent bacilli taken from cold-blooded animals, in contra-distinction to the virulent organisms in Koch's tuberculosis remedies. Quite naturally, Dr. Friedmann's Berlin confrères express some incredulity and surprise at the results claimed for the new "cure," and not a few contend that Dr. Friedmann's discovery

has not resulted in more cures than has Koch's. The American Consul to Berlin, in his official report concerning the cure, says that the medical profession will not concede the results claimed for the new treatment until facilities have been offered to physicians to observe the effects of the preparation under their own administration, and then only after a sufficient time has elapsed to determine whether or not the cures or the instances of amelioration of the condition of the patient are permanent. Owing to the comparatively short period which has elapsed since the new treatment has been tried, fears have been expressed lest the non-virulent organisms when injected into the human system may become virulent and cause an outbreak of the disease.

The fact that the Friedmann cure has been heralded far and wide and that its originator frankly admits that he is not prepared to give the remedy to anyone, and that all patients must be treated under his personal direction, seems to give color to the prevailing opinion among a large portion of the medical profession that the "cure" has either been prematurely announced or that it is exploited for personal gain. The opportunity for securing handsome financial returns is evidenced by the thousands of applications for treatment that have been made by persons from all over the civilized world who are willing to pay fabulous sums for the privilege of becoming patients under the direct care of the originator of the "cure."

However, we must not lose sight of the tendency on the part of the public press to herald far and wide any announcement concerning a new cure for consumption, and the willingness on the part of the public to grasp the announcement with the greatest confidence in its truth. On the other hand, the memory of Koch's experience warns us to go slowly and to have some sympathy for Dr. Friedmann in any honest though misguided intentions he may have in prematurely announcing a cure, the real value of which remains to be demonstrated.

DIAGNOSTIC PITFALLS

To the conscientious practitioner of medicine there is perhaps more to be gained in the way of material advancement in his science by well-proved errors committed than in any other possible way.

Some two years ago the profession was indebted to Dr. Richard Cabot for a masterly paper on some common diagnostic errors based on a large series of post-mortem observations. More re-

cently¹ Dr. Cabot has both enlarged and condensed this series and has summarized the results in a paper on diagnostic pitfalls, identified during a study of 3,000 autopsies, read before the Section on Practice of Medicine at the last meeting of the American Medical Association. Based as it is on careful ante- and post-mortem records in the Massachusetts General Hospital, this paper becomes one of distinct value in the field of internal diagnosis.

The three points Dr. Cabot endeavors to make are: 1. That a goodly number of "classic," time-honored mistakes in diagnosis are familiar to all experienced physicians because of repetition. Some avoidable, others inevitable, yet all should be borne in mind and properly labeled in warning terms. 2. Some common diseases seem inaccessible to diagnosis no matter how great the care. The proportion of such cases Dr. Cabot is attempting to work out in their relation to the commoner diseases. 3. Aside from the classic, well-known pitfalls, some less familiar ones should likewise be labeled "dangerous." Beginning with the frequent, well-recognized pitfalls, the author declares "acute gastritis" to be a rare disease in adults, the proper diagnosis in such cases usually being appendicitis or gallstones.

"Chronic indigestion" usually means peptic ulcer, pulmonary tuberculosis, constipation or cancer of the colon.

"Bronchitis" on post-mortem usually proves to be phthisis, bronchiectasis or bronchopneumonia.

"Asthma" after middle life is usually symptomatic of cardiac or renal disease.

"Unresolved pneumonia" commonly means intralobar empyema.

"Malaria" frequently means phthisis, hepatic syphilis, hepatic abscess and urinary infections.

"Typhoid fever" in a patient's history may indicate tuberculosis or latent sepsis, the latter being septic endocarditis, suppurative nephritis, etc.

"Rheumatism" the author has observed to mean sometimes aortic aneurysm, cancer of the pleura, tabes dorsalis, osteomyelitis, spondylitis deformans, bone tuberculosis, syphilitic periostitis, lead poisoning, morphin habit, alcoholic neuritis, trichinosis and gonorrheal infection. The diagnosis of rheumatism, the author considers one of the most dangerous of all diagnoses to the conscientious physician.

"Cystitis," usually a symptom and not a disease, indicates disease below the bladder (stricture, obstructing prostate, etc.) or above it

1. Jour. Am. Med. Assn., Dec. 28, 1912, p. 2295.

(renal tuberculosis and other renal infections), as its cause.

"Hemorrhoids" may mean cancer of the rectum.

"Neurasthenia." Usually the disease shows itself in youth based on congenital tendencies, though like tuberculosis it can be aroused into active progress by prolonged strain, mental or physical. Appearing after middle-age it is usually a symptom of organic disease such as dementia paralytica, chronic nephritis, arteriosclerosis, myxedema, hyperthyroidism or phthisis.

The early stages of the last named disease are rarely recognized, as are also those of gastric ulcer, pernicious anemia, leukemia, cirrhosis of the liver, congenital renal cysts, renal tuberculosis and many other diseases. The author appends a chart showing graphically the percentage of correct diagnoses in various diseases, which is most interesting and instructive. The greatest diagnostic success in this chart is in diabetes mellitus, scoring 95 per cent., while at the other extreme we find acute nephritis with 16 per cent. Looking over the chart the author doubts if anyone could do much better in the way of percentage of correct diagnoses, he being convinced that for the present and under the present limitations of diagnostic method few of the mistakes could have been avoided.

The figures, he believes to be modified by the great difference between terminal lesions (such as acute endocarditis, pericarditis and nephritis) and insidious, slowly developing lesions like those of typhoid infection or pernicious anemia. In the latter success is frequent, while in the former failure is common.

Diseases which kill so quickly that the observation period is very brief and the history faulty or altogether lacking, naturally show a large percentage of diagnostic failures. Cerebral hemorrhage or coronary occlusion are examples of this type.

The table does not include many of the more successfully diagnosed conditions such as pernicious anemia, leukemia, malaria, diphtheria, puerperal eclampsia, dementia paralytica, amebic dysentery and such diseases as are easily recognizable by routine modern diagnostic methods, nor does it include the more difficultly diagnosed conditions of acute pancreatitis, hemorrhagic pachymeningitis, early hypernephroma and many others.

Under the relatively unfamiliar mistakes, the author takes up first the question of vertebral tuberculosis. Because Pott's disease of the spine does not produce a knuckle, pressure signs, muscular rigidity and secondary abscesses in every

case is little reason for ruling it out of the diagnostic field. Post-mortem study of lesions of Pott's disease shows some of the most humiliating yet unavoidable failures of the author's experience. Only four of the seventeen cases that came to autopsy in 3,000 post-mortems were recognized in life, and yet in ten of the thirteen "misses" no blame could be attached. The clinical picture was usually that of an overwhelming infection (miliary) called "septicemia from pelvic abscess" (really a psoas abscess), "meningitis," "acute uremia," "septic scrotum," "otitis media with pyemia," "pneumonia" and "septic hand with general sepsis." Two cases showed slight kyphos but since it had existed for several years without change it was ignored. One case had been diagnosed by a skilful orthopedic consultant as spondylitis deformans because of the gradual, even curve of the whole spine. The average age of the thirteen patients with this disease unrecognized was 50 years, the extremes being 26 and 65. The fact is emphasized that we do not seek carefully enough for old vertebral tuberculosis in elderly patients.

Despite the fact that the diagnosis of acute uremia is frequently made, the author failed to find it correct a single time either in this series or in private practice. Of conditions so diagnosed the author has seen two cases of Weichselbaum septic meningitis, two of miliary tuberculosis, one of general streptococcus sepsis, three of arteriosclerosis, the cerebral type with sound kidneys, one of hepatic cirrhosis, one of pyelitis and one of bladder cancer.

Usually this error in diagnosis is made in comatose patients first seen when in that condition, and with little or no obtainable history. Urine drawn by the catheter is found to be loaded with albumin and casts and the diagnosis made regardless of the fact that in practically all comatose patients we find abundance of albumin and casts no matter what the cause of coma may be. While the author does not deny the existence of uremia as a distinct cause of death, yet he declares that he has never seen it, and in his experience uremia has proven to be a chronic condition coming on gradually and in association with edema, vomiting, headache and retinitis in elderly, rarely young, subjects. In such cases no other cause for coma is found post mortem, the kidneys are extensively diseased, the blood-pressure high, though it may be low.

Some rather startling statements are made by the author in regard to hepatic cirrhosis. It has long been recognized that the disease has a protracted latent period, and during such time diag-

nosis is impossible. Of eighty cases in the series, thirty-one were recognized during life and forty-nine not recognized. In thirty-three of the "misses" a well marked type of the disease existed. In three cases the clinical picture was essentially one of apoplexy though the brain was normal. Sudden death (toxemia) is by no means rare in cirrhosis, the fatal coma suddenly coming on in apparently perfect health. Had cirrhosis been considered a factor in the differential diagnosis it is possible that the diminution of liver dulness might have been recognized and the disease properly diagnosed.

Because of the profuse hematemesis three cases were mistaken for peptic ulcer. The author believes this symptom to be of more value in cirrhosis than in peptic ulcer since it occurs in only 20 per cent. or less of either gastric or duodenal ulcer and in 26 per cent. of the cirrhotics. Again, hematemesis without other symptoms is far more characteristic of cirrhosis than of ulcer which latter usually produces pain of a recognizable type and course. The clinical picture in these cases was of cardiac decompensation. Although not all the cases were alcoholic, yet the absence of alcoholism by no means excludes alcoholic cirrhosis. In three cases gall-stones were present and accounted for all the symptoms. Latent cirrhosis was present in patients dying from hyperthyroidism, prostatic and rectal cancer, cancer of the cecum and pancreas, pancreatic cyst, embolic pneumonia, cut throat, aortic aneurysm, dementia paralytica, diabetes, hemophilia without jaundice and many other diseases. Though a causeless hematemesis existed in some cases, yet those without ascites were rarely recognized in the series. Of those with ascites, tuberculous peritonitis was diagnosed in two cases although it did not occur simultaneously in a single case of the series. The error due to the high lymphocyte count was the misleading factor in these later cases. Pneumonia terminated the process in three cases and general streptococcic peritonitis in two. From this series the author concludes that both the frequency of the disease and its difficult recognition have been under estimated, and that it should be regarded as a possibility in all cases of sudden, causeless coma, and especially when accompanied by unexplained hematemesis.

Regarding cancer of the colon, 25 per cent. out of forty-three autopsied cases were not recognized during life. Two of these patients operated on did not even reveal the tumor. Others were unrecognized because of cerebral manifestations, and some because of the predominance of other bowel symptoms pointing to an erroneous origin,

especially stercoraceous ulcers which had complicated cancer of the colon but not been recognized as such a complication. Tumors were rarely felt and most of the correct diagnoses were based on symptoms and the history alone. Cancer of the colon should be suspected when there is evidence of obstruction without obvious origin in an elderly person, even though cerebral or renal metastases may overshadow the intestinal symptoms.

In a series of thirty autopsies showing hepatic abscess six correct diagnoses had been made. The clinical picture is one of general septicemia without definite liver signs. Fever, chills and leukocytosis following a drainage appendix operation usually means hepatic abscess. Jaundice and enlargement of the liver shown in the right back, but with signs of a small pleural effusion, point to the location of the pus. Toxemic or hematogenous jaundice in sepsis often means hepatic abscess. Since post-mortem findings revealed the pus in the substance of the liver and never impinging on the capsule it is readily seen why pain and tenderness over the liver were not present in any of this series.

In general, hepatic abscess should be suspected in all cases of general sepsis after drainage operations of the appendix or gall-bladder, or after an attack of colitis.

Only four cases of cancer of the esophagus out of twenty autopsied were correctly diagnosed. Latterly, with the routine use of the esophagoscope, more of these cases are being correctly diagnosed.

Though phthisis is recognized as a complicating factor of diabetes, yet the peculiar latency and lack of symptoms of the complication the author thinks are not fully recognized. Nine cases of active tuberculosis in cases of diabetes out of thirty-nine autopsied were not recognized. Most of these had no expectoration, and little or no cough.

From this study it may be readily seen how even the most careful and conscientious clinician can fall into the paths of erroneous conclusion, and Dr. Cabot's article should aid us all in being on the lookout for some of the more obscure yet distinctly possible diagnoses in the field of internal medicine.

NOTICE TO COUNTY SECRETARIES

THE first month of this year has been a very busy one for the county secretaries, as they have collected the bulk of the dues for this year. We have at the present time more members than we had this time last year, and already twenty-four of the counties have reported as many or more

members than they had last year. One more county has been added to the list of organizations, viz., Starke County, with Dr. Denaut as the new secretary. Altogether, it has been unmistakably demonstrated that the county secretaries have very rapidly educated the members to pay their dues early in the year. There still remain, however, 500 members who became delinquent February 1, and you will be expected to notify each one to that effect, and urge them particularly not to delay paying up, since in the meantime they are deprived of the medical defense. Each of these members will receive a notification from the state secretary also, so that there will be no excuse this year for a delinquent to overlook paying his dues. At your next meeting please make a special effort to get pledges from your best members to write papers for the coming meeting at West Baden. The program committee will complete the program earlier this year than usual, and papers to be presented at that time must be written and in the hands of the committee at an early date.

CHAS. N. COMBS, Sec'y.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THROUGH error, the treasurer's report, published in the January number, did not include all receipts and disbursements for last year. Accordingly, we are publishing in this number a revised treasurer's report, which covers the fiscal year of 1912.

ALL Indiana physicians who expect to attend this year's session of the American Medical Association, to be held in Minneapolis, June 17-20, 1913, are requested to enroll their names at the office of *THE JOURNAL*, as an effort will be made to have special cars for the Indiana profession.

THE American Medical Association has been doing an epoch-making work in connection with the fraudulent practices of quack doctors and patent medicine manufacturers. Reforms in the medical profession have been given scant consideration; but at last *The Journal of the American Medical Association* has begun the work of renovating the medical profession, and it is hoped that in time all that pertains to unethical practices and conduct will be given consideration.

THE Anti-Vaccination Society at Evansville, Ind., is courting trouble by threatening to enjoin the Board of Health from preventing unvaccinated children from attending the public schools. We think the best way to settle this whole question is to let the antivaccinationists get a good dose of small-pox. It would be an expensive lesson in more ways than one, but it would prove most effectual in placing some of the fanatical antivaccinationists in a position where they will have a deserved fear for small-pox and a wholesome respect for vaccination or anything else that will act as a preventive.

IN a recent address, President-Elect Woodrow Wilson, says that the nation's public health matters should be in the hands of the medical profession, and he very wisely says that so far as he knows there has been no attempt made to put the health matters of the country in the hands of any particular school of medicine, or to establish a medical trust. He thinks that all schools of medicine should have an equal show in offering advice and suggestions, and the spirit of his remarks seems to indicate that he is not in sympathy to the slightest extent with the propaganda of those self-appointed patriots who have ranged themselves under the banner of the League for Medical Freedom.

IN most communities whooping-cough is not a quarantinable disease. However, the disease has potential possibilities of serious results, and nearly all people feel that they do not care to have their children unnecessarily exposed. One of the physicians employed in governmental service has recommended that children suffering from whooping-cough should be appropriately tagged with a badge of some kind which will always indicate that the wearer is suffering from whooping-cough. This would minimize the dangers of the disease through a warning to others, and yet would not seriously interfere with the liberties of the one that is suffering from the disease. The suggestion is worthy of consideration.

MALPRACTICE suits seem to be on the gain in Indiana if we may judge by the number of applications for medical defense that are coming in to the Committee on Medical Defense of the Indiana State Medical Association. Careful examination of the evidence submitted seems to indicate that the public is advancing more rapidly than some members of the medical profession in a knowledge of what constitutes the best and most scientific methods of treatment. It is also quite evident that some men in the medical profession are

attempting work for which they are not fitted by education or experience. It has been well said by one of our leading educators that what we need in the medical profession is men with better training and a higher appreciation of ethical and moral obligations.

Collier's Weekly deserves great praise for its fight against nostrum advertising and the public's patronage of quack doctors and patent medicine manufacturers. In a recent editorial note attention is directed to the school of chiropractics, and the Michigan legislature is called on to purge the state of a chiropractic college located at Grand Rapids which promises to teach students in a few weeks to be able to cure many diseases.

Collier's Weekly might have included Indiana in its criticism, for we have some chiropractic colleges in this state, and the advertising that is sent from these fake medical colleges is on a par with the Michigan chiropractic institutions in holding out promises concerning the ease with which a chiropractic degree may be obtained and afterward fame and fortune. Just why these fakers who are actually practicing medicine without a license cannot be punished under our medical laws is a mystery. Perhaps *Collier's Weekly* can give us the reason, but in doing so we are under the impression that some of our state officers who are sworn to enforce the laws would come in for severe censure.

It is not often, figuratively speaking, that a newspaper kills the hen that lays the golden egg. But we have noticed quite recently that some newspapers are making public the fact that the nostrum eye water advertised under the name "Murine" costs five cents a gallon and is sold at the rate of \$138 per gallon. One editor remarks that a profit like that must make even some of the automobile manufacturers green with envy.

The profits from Murine are no greater than the profits from many other proprietary remedies that are practically worthless. Their composition and fraudulent character have been exposed, and the public warned concerning the swindle, but as Barnum well said, "The American people like to be humbugged," and continue to pour dollars into the coffers of proprietary medicine manufacturers. Without newspaper advertising these fellows would cease to exist, and when we find a newspaper that refuses to take advertising money from the patent medicine manufacturers we feel like bowing in reverence and exclaiming: "For once here is a newspaper owner having a conscience!"

In a vicious editorial, the Fort Wayne *Daily News* (Republican) criticizes the Secretary of the State Board of Health for many eccentricities and actions tending to place him in the limelight, but in particular for his public utterances concerning the bad sanitary and hygienic conditions existing in rural communities, and calls on Governor Ralston to appoint a new official to head our state health department. Perhaps the editorial will meet with some approbation in certain quarters, and especially among newspapers in rural communities, but the patent fact remains that Secretary Hurty has uttered some truths which do not set well with those affected and their friends who are willing to fight their battles. It is quite true that many people living in rural communities have a keen sense of what constitutes sanitary and hygienic conditions, but it is equally true that a very large percentage of the farmers are indifferent to some well established sanitary and hygienic laws, and Secretary Hurty not only has pointed out this fact, but is willing to prove the statement. It is all well enough for the newspapers to claim that our rural friends have been insulted, but before they become too vigorous in the defense of their rural friends it would pay them to investigate the truth or falsity of the charges that have been made.

AS MANY physicians seem to be unfamiliar with the rules under which the Indiana State Medical Association furnishes medical defense in malpractice suits, we herewith reprint the following:

"The Association will not undertake the defense of a member in a suit that may be brought to secure indemnity for services rendered prior to Jan. 1, 1912, nor for services rendered prior to the payment of dues by any member for any current year. In other words in order to secure medical defense from the Association the services for which indemnity is asked must have been rendered on or after Jan. 1, 1912, and at the time the physician rendering the services must have been a member in good standing of the Indiana State Medical Association.

A member desiring to avail himself of the services of the Medical Defense Committee must first submit his claim, with all facts relative thereto, to his local county medical society. This committee shall immediately report its findings and offer recommendations to the defense committee of the State Association, viz.: Drs. J. R. Eastman, chairman, A. C. Kimberlin and A. E. Sterne, Indianapolis. The report from the county medical society, if favoring medical defense, must be accompanied by written authority of the defendant granting the defense committee full power to act in his behalf, and an agreement that the case shall not be compromised or settled without the consent of the committee. In the event that the county medical society's committee shall fail to recommend the case as one worthy of recognition of the Medical Defense Com-

mittee, a direct appeal may be made. Suits brought against the estate of a deceased member will be defended as if that member were alive."

IN *The Journal of the American Medical Association* of Jan. 4, 1913, attention is called to the fact that the *Medical Record*, the *American Journal of Obstetrics*, the *Annals of Surgery*, and the *American Journal of the Medical Sciences*, all otherwise excellent journals, are guilty of carrying the advertising of worthless or fraudulent proprietary medicines. In defense of their position, the editors and publishers of these journals say that inasmuch as but few physicians have entered complaint concerning the advertising policy pursued it is taken for granted that the medical profession as a whole approves of the advertising that is carried. This leads to the suggestion that the members of the medical profession ought to wake up and enter a vigorous protest against a business policy which is so decidedly opposed to ethical and scientific advancement, to say nothing of the honesty of the policy. The medical profession, through its national association, has undertaken an epoch-making work through its Council on Pharmacy and Chemistry, and it is up to the individual members of the profession to help in every possible way to make this work effective and valuable to the profession as well as the public. A vigorous protest from any considerable number of subscribers to any periodical is always heeded by the editors and publishers of that periodical, and if those medical journals that care for the opinions and the support of subscribers are asked to clean up their advertising pages, there will be a general reform which is so badly needed.

AN editorial concerning the advertising of the doctor, published in an Indianapolis newspaper, is reappearing in numerous newspapers throughout the state. In short, the charge is made that medical men who pose as being ethical and who bitterly condemn the doctor who advertises in the lay press and pays for it, never miss an opportunity of exploiting themselves through the lay press if they can do so without expense to themselves and with the advertising appearing in the news columns. All of which is perfectly true and is deserving of serious consideration. The so-called "quack doctor" who carries a half or full page of advertising containing announcements concerning his equipment and ability to treat all the diseases that flesh is heir to, is a novice in the art of advertising as compared to the very prominent and skilled ethical (?) physician who permits himself to be exploited in the reading

pages of the daily press and never loses an opportunity to take advantage of such advertising. But the fact remains that some of the "big guns" in the medical profession are the worst offenders, and that if some of the little fellows who try to be ethical are guilty of overstepping the line to the slightest extent they are immediately brought to account by their confrères. The principles of ethics adopted by the American Medical Association are worthy of support, but receive scant consideration at the hands of some leaders in the profession, and until we can make the leaders live up to our code of ethics what can we expect of the rank and file? What we ought to do is to have some mode of punishment of offenders, and enforce it without fear or favor.

It is exceedingly unfortunate that the Indiana legislature, now in session, shows such a decided tendency to cripple many of our state educational, beneficent and charitable institutions by withholding from them much needed appropriations for enlargement and operation. It will be remembered that two years ago the legislature in a spasm of economy refused to furnish many of our institutions anything more than sufficient funds to pay the actual running expenses, and the evil effects of this short-sighted policy have been seen in lessened efficiency of the institutions that suffered from want of funds for development. With the prospect that the present legislature will be even more parsimonious, it can be readily seen that Indiana is taking a step backward in the progress of institutions that are vitally necessary for the welfare of the people of the state. It is nothing short of a shame and disgrace to acknowledge that such beneficent institutions as Purdue University and the Indiana University are to be dropped with a dull, sickening thud when very modest appropriations are asked to care for normal growth and development of these institutions. But our educational institutions are not the only ones to suffer, for the Indiana State Tuberculosis Hospital, an institution that is doing a wonderful work in the cure and treatment of the consumptive poor of the state, is also coming in for scant consideration. The institution has a capacity for 100 patients, though it now has 125, and there is a long waiting list. The trustees asked for an appropriation for the erection of buildings which would increase the accommodations to 300, but the legislative committee declined to recommend any appropriation for the development of the institution. Practically every state institution needing funds for development and successful

operation seems to have received a rebuke at the hands of the legislative committee for even daring to ask for anything more than funds to maintain the institutions in a most economical manner. We notice, however, that there was not the slightest hesitation in making various appropriations of questionable usefulness, and the salaries of many state officers have received a decided boost. The kind of reasoning which permits this sort of action is beyond understanding.

DR. HURTY, Secretary of the State Board of Health, is doing a tremendous amount of work these days in connection with the spread of information concerning the importance of dealing with public-health problems as a business proposition. He has lectured before civic organizations and women's clubs in this state, as well as various other states in the Union, and his forceful and entertaining way of presenting the subject has done much in the way of making converts for the cause. The most effectual way in which health matters can be presented to the people is by showing them what it means in the matter of dollars and cents. It seems rather cold-blooded to figure health and happiness on a commercial basis, but it is the only basis which appeals to a very large proportion of our population, and Dr. Hurty has adopted the right course in his endeavors to get the people interested in his work when he shows conclusively from a money standpoint that the prevention of disease means an enormous saving in the wealth of the country, and that sickness and death mean a corresponding loss. Our work in the furtherance of public health should be considered a business proposition and dealt with in an economic way. We have long tried to impress the public with the value of the work from the humanitarian and sentimental side of the question, but this does not appeal to the masses, and it has not had sufficient weight with those interested in commercial affairs or in legislation. If we prove, and it certainly can be done, that the subject merits serious consideration because it is an economic problem and means the loss or the saving of millions of dollars annually to this country, depending on the manner in which the subject is handled, we shall begin to accomplish much that has never been accomplished before.

WE sometimes wonder why the regular medical profession continues to spend time, energy and money in efforts to improve public-health conditions when the work is so little appreciated among

a very large class of people, and when the very conditions that the medical profession is trying to correct lead to more sickness and the income on which physicians must depend.

We are reminded of this by the action of the Mothers' Club in one of our large Indiana cities, brought about by the desire of school teachers to get the mothers in closer touch with the work of the public schools. This Mothers' Club has been requesting and receiving advice and support from public-health officers and physicians who have volunteered their services in free medical inspection of public school pupils, and have given entirely impersonal talks or lectures before pupils and mothers concerning public-health matters. As a final touch to this work, the club invited a so-called osteopathic physician to talk to the club on some health topic. In the course of his remarks the osteopathic physician proceeded to attach no value to vaccination for small-pox or the administration of antitoxin for diphtheria, and to make light of other well-recognized facts pertaining to the eradication and cure of communicable diseases. Of course, he did not lose sight of the opportunity for self-exploitation, as evidenced by the numerous announcements in the daily papers that he would lecture before the club, and his expressed opinion before the Mothers' Club that the proper treatment of diseased conditions rests on certain manipulations fathered by the osteopathic cult, and that that dread disease, diphtheria, is amenable to such manipulations.

It is quite probable that a large majority of those who heard the talk will pin no faith to the teachings promulgated, but it is possible that a few deluded mothers may believe that there is truth in what was said, and in consequence submit some innocent and helpless child to an experiment that may prove fatal. It is unfortunate that it is the innocent who have to suffer from such vicious teaching and practice. This is a free country (too free in many respects), and we tolerate much free speech and action which is decidedly detrimental to the best interests of the people. But there ought to be some means of preventing the promulgation of doctrines which lead to the needless loss of life.

There can be no objection to the adoption of anything that is good in the teaching of osteopathy, Christian Science, or anything else, but when the teaching and practices are carried to the point where they antagonize established facts concerning the cause, prevention and cure of diseases which maim or destroy life, there should be some means of punishing those who are responsible for the effects, and particularly when the effects concern the ignorant, innocent and help-

less. Vaccination as a preventive of small-pox and the administration of antitoxin for the cure of diphtheria have proved their value beyond a question of doubt, and it is nothing short of criminal to deny any person the advantages of these health-saving measures. Osteopaths would do well to confine their efforts to diseases and conditions which are not so likely to be disfiguring or fatal as small-pox and diphtheria.

At this writing the Keegan bill to curb the indiscriminate sale of habit-forming drugs bids fair to pass the Indiana Legislature in its amended form. In its original form the bill contained a "joker," which subsequent events seemed to show was placed there for a purpose, and which would have been a serious blow to the medical profession, inasmuch as it would have prevented medical men from employing or prescribing such habit-forming drugs as cocaine, morphine, etc., without first procuring the same on a written prescription filled by a registered pharmacist. Such a provision would be ridiculous in the extreme, and work a great hardship to suffering humanity. The sponsors for the bill, aided and encouraged by prominent members of the pharmaceutical association, declared that there was nothing in the original bill which would prevent the legitimate use of habit-forming drugs by physicians. But the real intent became manifest when the originators of the bill objected to a simple amendment to the effect that nothing in the bill should be construed as interfering with the legitimate rights of physicians in the employment of the drugs under consideration. The fact that the original bill made no exceptions, and that the courts would be left to construe the meaning of the bill as far as it pertained to physicians, is evidence that an amendment was necessary, and the originators of the bill should find no fault with the amendment if they are sincere in their desire to treat physicians fairly. The fight made by the pharmacists to prevent the adoption of the amendment does not speak well for their intention of playing fair with the medical profession. The amendment does not cripple the bill in the least, and the attack made on the medical profession by the pharmacists, represented by the president and secretary of the Indiana State Pharmaceutical Association, is not likely to create a very friendly feeling between the physicians and pharmacists. Physicians almost to a man are interested in suppressing the sale of habit-forming drugs to dope

fiends, and where you will find one physician that is guilty of catering to the demands of the dope fiend you will find fifty pharmacists who are guilty of the practice. To prevent physicians from prescribing or using on their patients habit-forming drugs, except as obtained by prescription filled by a registered pharmacist, would not only be a great injustice to the medical profession, but the suffering public as well, and such an unjust and uncalled for provision would not strengthen the anti-dope bill.

DEATHS

MRS. EMMA PUSEY FREEMAN, wife of Dr. EDWARD D. FREEMAN, died at her home in Osgood, January 17.

CHARLES T. BROCKWAY, M.D., of Brookston, died January 12 of blood-poisoning, following a bruise of the finger, caused by cranking his automobile a week before. Dr. Brockway was born in 1863. He had practiced medicine for twenty-five years, and was surgeon for the Monon Railroad at Brookston.

CHARLES RYKER, M.D., Jefferson County's oldest physician, and formerly county coroner, died at his home in Manville, January 19; aged 77 years. Dr. Ryker was born in 1835, and lived his entire life in Manville, practicing medicine there for forty years. Dr. Ryker had suffered from sarcoma of the neck for more than a year.

W. W. P. McMILLEN, M.D., for thirty years a practicing physician of Columbia City, died January 15 at his home on Winchester Street; aged 65 years. Dr. McMillen had been at the point of death several times in the last serious illness of several weeks, but had grown slightly better. Death, which was due to heart disease, came to him while sitting in a chair looking over some papers. Dr. McMillen was a native of Starke County, Ohio. He received his education in the colleges in Smithville, Ohio, and Pittsburgh, Pa., and later at the Cincinnati and Fort Wayne medical colleges. At Fort Wayne he graduated in a class of more than one hundred with highest honors. He practiced at Rome, Ohio, and Fort Wayne before coming to Columbia City thirty years ago. He was a member of the Adams County Medical Society.

NEWS NOTES AND PERSONALS**INDIANAPOLIS**

RALPH CHAPPELL and FRANK T. DOWD have been appointed deputy coroners.

DR. M. THORNER announces the removal of his offices to suite 500-502 Hume-Mansur Bldg.

DR. T. VICTOR KEENE announces the removal of his offices to 500-502 Hume-Mansur Bldg.

DRS. T. P. NOBLE and W. P. GARSHWILER, accompanied by their wives, recently returned from a two weeks' pleasure trip to New Orleans.

DR. SIMON J. YOUNG announces that he is now located in his new offices in the Hume-Mansur Bldg., and that he is limiting his practice to abdominal surgery and diseases of women.

DR. C. E. FERGUSON and wife left Indianapolis January 19, with a tour of the Mediterranean in view. Short stops will be made in Italy, Turkey and other points of interest. They expect to be gone about three months.

DR. WILLIAM F. KING, assistant secretary of the State Board of Health, has recently submitted an interesting report in which it is shown that the average span of life in Indiana has made a gain of 5.6 years in a period of ten years.

THE report of the trustees of the Indiana University asks for appropriations by the legislature of \$50,000 for a site for the Robert W. Long Hospital, of \$25,000 a year for the support of the medical school, and of \$100,000 a year for the Robert W. Long Hospital.

THE administrator for Dr. William Flynn, whose will provided that his estate, after all debts were paid, should go to Indiana Medical College, has recently filed his final report, which shows that, after all indebtedness was paid, a balance of \$3,245.06 remained for the medical college.

THE mid-winter meeting of the Council of the State Association was held in Indianapolis January 22, for the purpose of discussing matters of interest to the Association. While here, the Councilors were the guests of President Kimberlin and Dr. W. N. Wishard at a luncheon at the Columbia Club.

SCHOOL inspectors under the city board of health have been instructed by Dr. H. G. Morgan, city sanitarian, to include in their work an inspection of children's teeth. The school inspectors are to report to the teachers, who are to notify parents by letter if a child's teeth are found to need attention.

CONSTRUCTION work on the Robert W. Long Hospital, located on West Michigan Street, between Hiawatha and Porter streets, is progressing rapidly. The foundation is completed; structural steel in place, and the walls, which are of brick, are going up. If not delayed by bad weather, the hospital should be ready for occupancy by July.

DR. C. A. WHITE, Danville, Dr. C. S. Woods and Dr. E. D. Clark, of Indianapolis, were appointed by President Kimberlin as a committee to represent the State Association at a public hearing of House Bill No. 69, which has for its object the control of the sale of habit-forming drugs. This is a bill designed to meet the demands of an aroused public sentiment for the better control of the sale of drugs, the habitual use of which are deleterious to the health.

THE Indianapolis Medical Society has just closed a very satisfactory year. The success of the year is very largely due to the earnest and capable administration of the president, Dr. Gabe, and the efficient support of the other officers. These officers evidently did not view their election solely as an honor, but rather a call to work. This fact in some measure at least accounts for their success. The new officers have the entire confidence of the society.

THE new St. Vincent's Hospital, located on Fall Creek Boulevard, between Illinois and Meridian streets, is about completed, and the process of moving has begun. This hospital, modernly equipped as it is with obstetrical facilities; large, well-lighted operating-rooms; adequate laboratory, including x-ray apparatus, is a very distinct addition to the hospital facilities of Indianapolis. Dr. K. R. Ruddell, formerly intern at St. Vincent's will have charge of the laboratory.

A GREAT many former students of medicine in Indianapolis will be grieved to learn of the death of Mrs. Oakes, who was so long identified with the City Dispensary, and later the dispensary maintained at the College. She died recently of bronchopneumonia complicated by myocarditis.

The average individual cannot see life from the point of view of Mrs. Oakes. Though not of it, the underworld was her world. There is scarcely a needy family in the city but that will miss her.

A RESOLUTION introduced by Dr. Lowder and signed by the women members of the Indianapolis Medical Society, was recently presented to the Society recommending the appropriation of a sum of money for the purpose of aiding the prosecution of the Dr. Knabe murder case. By a very large majority vote, without discussion, a motion to adopt the resolution was laid on the table. It seems to be the opinion of a large majority of the members that no financial aid should be extended the prosecution by the society.

DR. J. A. WITHERSPOON, President-Elect of the American Medical Association, addressed the Indianapolis Medical Society at its regular meeting on January 21, speaking on the subject, "Medical Organization." In the afternoon he held a clinic at the City Hospital, which was largely attended by physicians and students of the university. While in the city, Dr. Witherspoon was the guest of honor at a luncheon at the Columbia Club, given by Dr. W. N. Wishard, and a dinner by Dr. Sterne at the University Club.

PHYSICIANS over the state, and especially those in Indianapolis who have been, and are, vitally interested, will be pleased at the report of the Council on Medical Education of the American Medical Association, which appears in the *Journal* of that organization in the issue of January 18. As stated in the report, this classification of medical colleges in the United States follows the third inspection made by the Council, and sets forth the basis on which the classification is made. With twenty-one other colleges, the Indiana University School of Medicine is given a rating of Class A+, which signifies that it is giving an acceptable four years' course, and has received a rating of 70 per cent., or above, in each and all of the ten divisions of data on which the classification was made. This is particularly gratifying to the many physicians who have been long devoted to medical education in this state, as well as encouraging to those who have recently taken up the task. This report should act as a substantial stimulant to every worker in the college, to the end that this rating be abundantly justified.

THE Committee on 'Tuberculosis of the State Association, composed of Dr. Dodds, Indianapolis, Chairman; Dr. Hamilton, Kokomo; Dr. Gekler, Rockville, and Dr. C. C. Morrison, Greensburg, have prepared and introduced to the Legislature a bill designed to protect the public against persons suffering from tuberculosis. The bill defines what is necessary for a diagnosis of open consumption, and provides that any individual known to be so diseased, who is guilty of carelessness about the disposal of sputum in public places after due warning by county health officers, shall be subject to arrest and trial before a Justice of the Peace. If found guilty, such an individual is subject to a fine of not less than \$5, or more than \$25 for his offense, and he is further subject to confinement in an institution provided by the County for the isolation and treatment of tuberculous patients. The object of the bill is to forcibly call to the attention of the public the great danger to its health from these individuals suffering from tuberculosis, who are careless of the welfare of others.

GENERAL

DR. A. E. OTTO, of Alexandria, is confined to the house with tuberculosis of the spine.

THE CHICAGO MEDICAL SOCIETY gave a banquet in honor of its ex-presidents, at the Hotel Sherman, the evening of February 12.

DR. FRANCIS M. MUELLER has recently resigned as Secretary of the Lawrenceburg Board of Health, because of the rigid health laws, which are unpopular.

DR. DWIGHT M. MACKEY, of Hobart, and DR. JOHN KENT, of Mulberry, are both suffering from broken arms as a result of back firing when trying to crank their automobiles.

AT the regular meeting of the Whitley County Medical Society, held January 14, papers were presented by Dr. B. W. Rhamy, of Fort Wayne, on "The Wassermann Test," and Dr. E. V. Nolt, on "Pleurisy."

THE mid-year convention of the Medical Section of the American Life Convention will be held at Hot Springs, Ark., February 26-28, 1913. Dr. F. W. Foxworthy, of Indianapolis, is chairman of the Program Committee.

DR. I. N. COCHRANE, a prominent surgeon of Delphi, has been in a critical condition as a result of a fall over the banister of the winding-stairway in his home, to the floor below. His head was severely cut and he sustained internal injuries.

OF 1,867 pupils examined in the public schools of Richmond in the first period of the term, physicians found approximately 800 physically defective in some respect. Defects of the eyes, ears, nose, teeth, skin, lungs, heart and nervous system are sought, and when found, the parents of the child are notified.

A BILL that seeks to say "good-bye" to the roller towel, the short bed-sheet, stale bed linen and the common drinking-cup, as well as to provide for a system of inspection of hotels, office buildings, etc., has been introduced in the Indiana legislature by Representative Adam, of Indianapolis, a traveling salesman.

W. B. SAUNDERS COMPANY announce that they have in active preparation a work on the History of Medicine, by Dr. Fielding H. Garrison, Principal Assistant Librarian, Surgeon-General's Office, and Editor of the *Index Medicus*. The book will present the history of medicine from the earliest ancient and primitive times.

A BILL has recently been introduced in the Indiana legislature, which, if it becomes a law, will insure each passenger on all interurban and steam cars a minimum of ten cubic feet of fresh air a minute. The proposed act also provides for the ventilation of all passenger stations and for the sanitation of all city street cars, steam cars, Pullman cars, suburban and interurban cars.

BECAUSE of alleged insanitary conditions, Dr. F. M. Gardner, health officer of Monroe County, early in January ordered six schools in Salt Creek Township closed, pending bringing the matter before the grand jury. One of the trustees, when questioned, said that the conditions were caused by the township board refusing to grant money for improvements.

DR. JAMES HARDING, of North Manchester, while cranking his automobile several weeks ago, slipped on the icy pavement and struck a stone, cutting off the lobe of his right ear. The lobe was applied to the ear with adhesive plaster, and Dr. Harding has recently announced that not only has the lobe grown fast, but that not even a scar will remain to tell the story.

THERE were 338 more deaths in Indiana in December, 1912, than in the corresponding month of the previous year, according to the statistical report of the State Board of Health, recently completed. There were no deaths in two towns, Huntingburg and Rensselaer. The death-rate for Newcastle was extremely low, being 3.5 per cent. The highest death-rate, 38 per cent., was at Monticello.

INDIANA physicians are now required to make reports to the State Board of Health of all cases of diseases resulting from the social evil just the same as small-pox, diphtheria and other contagious diseases. Indiana is the sixth state to take this advanced step. This law is also enforced in New York, Utah, New Jersey, Washington and California. It is not the intention at first to require physicians to report the names of persons suffering with the diseases, but doctors will be asked to make monthly reports direct to the State Board of the number of such patients they have treated.

DR. J. N. HURTY, Secretary of the State Board of Health, puts it up to the residents of Montgomery County, as he formerly put the matter up to the people of Bartholomew County, to have a sanitary survey made of their communities, to the end that the truth or falsity of Dr. Hurty's statements as to sanitary conditions in those counties may be proved expertly and disinterestedly. Dr. Hurty offers to pay the cost of the sanitary surveys in the two counties if it is found that "less than 50 per cent. of the houses inspected" are insanitary, by standards to be agreed on mutually.

Since January 1, the following articles have been accepted for inclusion with New and Non-official Remedies:

Vacules Digitol (H. K. Mulford Co.).

Sodium Glycerophosphate (Mosanto Chemical Co.).

Staphylococcus Pyogenes Aureus Vaccine (G. H. Sherman).

Staphylococcus Pyogenes Albus and Aureus Vaccine (G. H. Sherman).

Pneumococcus Vaccine (G. H. Sherman).

Meningococcus Vaccine (G. H. Sherman).

Isatophan (Schering & Glatz).

Isatophan Tablets (Schering & Glatz).

Hediosit (Farbwerke-Hoechst Co.).

CORRESPONDENCE

SEE THE PANAMA CANAL

SPRINGFIELD, ILL., Feb. 1, 1913.

To the Editor:—The Illinois State Medical Society has arranged for an excursion to Panama by way of Key West, which, if not too late, might be of interest to some of the members of the Indiana State Medical Association who would like to go on this trip.

There will be a special train to Key West. The entire vessel sailing from Key West will be occupied by the party, and altogether the excursion promises to be most delightful.

As you know, the canal will be opened this Fall, and this is probably the last opportunity anyone will have of seeing the most stupendous engineering and sanitary work of the age. If any of the members of the Indiana State Medical Association desire to join this party, please have them wire me at once, and we will send them particulars.

Please insert this in the next issue of your valued journal.

The excursion will leave Saturday, March 1.

With best wishes, I am,

Yours very truly,

GEO. N. KREIDER, M.D.

522 Capitol Ave.

THE ODIN CANCER CURE

BERNE, SWITZERLAND, Jan. 18, 1913.

Dear Dr. Bulson:—The light of your countenance would be greatly appreciated at this particular moment. I am making this trip alone, and for a man of my temperament to have to keep his mouth shut in two or three languages is no fun.

While in Paris I looked up Dr. Odin, who is reported to have found a remedy to cure cancer in all its stages. As you know, one of my chief reasons for stopping in Paris was to investigate this alleged cancer cure of Dr. Gaston Odin which was published in various papers throughout the United States.

With a very intelligent interpreter, I went to Dr. Odin's address, as given by the directory, which was 63 Rue Vaman. This is in a cheap quarter and the place proved to be a very modest apartment house. The janitor informed us that our doctor had just removed to Boulevard des Invalides, and there we found him in elegant apartments, newly furnished in the most expensive manner. The neighborhood was one of

the best. Evidently prosperity was coming from some source.

We were ushered in by a lady (who proved to be Dr. Odin's wife) and were asked to wait until the doctor had finished his lunch, and during this time we could inspect the gorgeous furniture (all new).

Presently the doctor entered, smoking a cigarette. He was small, about 5 feet 5 inches, and weighed about 120 pounds, was a typical Frenchman, about 45 years old, I should think. He looked well fed and well wined. He was very pleasant and talkative. His story was about as follows:

He had been working alone on the cancer problem for fifteen years and had exhausted all his means. He was connected with no hospital and had no aid from anyone. He had discovered the germ of cancer in the blood and had also found a remedy in a serum which would absolutely cure all cases. I asked him his methods of finding the germ, but he said he was not prepared to demonstrate it to me as his laboratory was in disorder.

I asked him if he had published anything and he gave me a short article, merely stating he had found these germs but gave nothing of his methods, *nor any proof, experimental or otherwise, that the "germs" were really those of cancer.*

I then asked him about his serum. He said that the serum was prepared by a process which he kept secret; he injected it under the skin, not at the site of the cancer.

I asked him if he was prepared to sell or formulate the serum to others. To this he answered that the French government would not allow him to sell a serum unless experts would pass on its value as well as its harmlessness. With this he broke out in a denunciation of governments in general and the medical profession in particular, because they interfered with his freedom in the matter. He was very anxious to know if he could do better in America. He was very willing to consider a proposition to buy the right to use his remedy elsewhere.

I swallowed all this with a straight face and pretended great interest. He then volunteered to show me his cases in proof of what he had said. There were about a dozen patients waiting at the time. The first he brought in was a woman with a typical carcinoma of the breast, nearly as large as an English walnut. There were no enlarged glands under the arm. She had had only a few treatments, and from her own statement there had been no change. The case should have been operated at once.

Then came two men suffering with cancer of the rectum; both said they were better, but from the history I got from them I think they both had hemorrhoids. They certainly did not look like they were suffering from cancer.

The next was a man who undoubtedly had cancer of the larynx; he had been treated a month, and said he felt better but could hardly talk and certainly was in a very bad condition, lacking much of being cured.

The next was a woman 29 years of age. She had a tumor of the breast which had been removed by incision below; the breast had not been removed. She said she had a return and it had pained her. There was no evidence of return, no enlarged glands; in fact, every evidence showed that the trouble was benign and the treatment had affected her imagination only.

I later inquired about Dr. Odin's professional standing from a professor and doctor I met, and found that he is connected with no hospital, no medical organization; that he had published nothing nor made any demonstration of his discovery. He has never done any work on lines of research or investigation that anyone knows about. In short, he claims to have the greatest discovery of the age, but nothing in his previous work nor present evidence supports that claim.

He is not overjoyed that he has found (?) the greatest boon to the human race, but he is very anxious to make money, as he says, only for his wife and children, as he cannot afford to give it to the public on their account. He said if some of our rich philanthropists would give him enough cash he would publish it.

My guide said Dr. Odin was not an educated man and spoke the "commonest" French.

To me there was a very sad side to this interview. He took me in his private office and showed me a large number of letters, most of them from America. These were from unfortunate sufferers from the worst of all diseases, who, in desperation, are appealing to this miserable little charlatan for relief; and this has been brought about by the unfair and distorted report published in papers which pretend to serve their patrons.

I shall remain in Berne a few days longer, then go to Vienna for a few weeks, thence to Frankfort to see Ehrlich, and when I get to Berlin I want to look up that other erstwhile benefactor of the race, Dr. Friedmann, who is reported to have found a cure for tuberculosis.

With kindest regards to you and yours, I am,

Sincerely yours,

EDWIN WALKER.

SOCIETY PROCEEDINGS

THE COUNCIL OF THE INDIANA STATE MEDICAL ASSOCIATION

The regular midwinter meeting of the Council of the Indiana State Medical Association was held at the Columbia Club, Indianapolis, Jan. 14, 1913, with the following members present: Drs. W. R. Davidson, Evansville, First District; August Knoefel, Linton, Second District; W. J. Leach, New Albany, Third District; W. H. Stemm, North Vernon, Fourth District; J. H. Weinstein, Terre Haute, Fifth District; W. N. Wishard, Indianapolis, Seventh District; G. W. H. Kemper, Muncie, Eighth District; W. H. Williams, Lebanon, Ninth District; Geo. R. Osborn, LaPorte, Tenth District; B. Van Sweringen, Fort Wayne, Twelfth District, and A. C. McDonald, Warsaw, Thirteenth District; President A. C. Kimberlin, Indianapolis; Editor A. E. Bulson, Jr., Fort Wayne, and Secretary Chas. N. Combs, Terre Haute.

The meeting was called to order by chairman, Dr. W. N. Wishard, and the minutes of the last meeting were read and approved. The councilors' reports of the various counties were handed to the secretary. Dr. Kimberlin made a report for the Medical Defense Committee and a discussion followed concerning the expenses incident to this work. A motion made by Dr. Davidson was carried, to the effect that all bills incurred by this committee, before being paid, must be validated by the Auditing Committee of the Council, which action is in compliance with the rules laid down by the house of delegates.

The treasurer's report for the fiscal year was read and Dr. Knoefel's motion was carried, providing that the Auditing Committee arrange for the treasurer's bond and file the same with the secretary, and also that this committee arrange to place some of the surplus funds at interest in order that the income derived might be at least sufficient to pay for the bond.

Following a discussion concerning the coming meeting at West Baden it was moved and carried that the commercial exhibits should not contain any preparations not approved by the Council of Pharmacy of the American Medical Association.

The wording of the triplicate receipts now used by the county secretaries was discussed, and it was moved and carried that in the receipts to be printed for next year the wording shall be "Medical Defense Fund entitles the above named member to the benefits provided by this fund from date of this receipt to and including Dec. 31, 1913."

Moved and carried that the state secretary notify every delinquent member February 1, and urge him to be reinstated by payment of his dues.

Dr. Bulson, editor of THE JOURNAL, made a report which was very flattering to the Association. Concerning advertising THE JOURNAL is rated A 1 in the list of state journals, as it is now and always has been free from any unethical advertisements. He again deplored the fact that the county secretaries are failing to send in the reports of their meetings.

No other business was presented and the Council adjourned.

CHAS. N. COMBS, Secretary.

Report of Treasurer for the Fiscal Year 1912

David W. Stevenson, treasurer, in account with The Indiana State Medical Association.

DEBIT

| | |
|---|------------|
| To cash on hand after payment of all outstanding bills for 1911..... | \$1,872.19 |
| To cash from Secretary, dues collected for the year 1912, 2,491 members | 4,982.00 |
| Grand total | \$6,854.19 |

CREDIT

| | |
|---|------------|
| By cash to Secretary, honorarium, and incidental expenses | \$ 366.85 |
| By cash to F. C. Heath..... | 9.26 |
| By cash to Councilors (expense accounts)... | 89.94 |
| By cash to stenographers | 151.00 |
| By cash to printers | 201.05 |
| By cash to Committee on Necrology | 10.00 |
| By cash 2,491 subscriptions to THE JOURNAL.. | 1,868.25 |
| By cash set aside for Medical Defense Fund.. | 1,868.25 |
| | \$4,564.60 |
| To balance on hand | 2,289.59 |
| Grand total | \$6,854.19 |

Respectfully submitted,

DAVID W. STEVENSON, Treasurer.

SEVENTH COUNCILOR DISTRICT MEDICAL ASSOCIATION

Meeting held at Martinsville, December 12

Meeting called to order by president, Dr. C. A. White. Invocation by Rev. Batchelor, and address of welcome by J. W. Brooks, secretary and treasurer of the Martinsville Sanitarium. Minutes of meeting held at Frankfort, May 24, 1911, read by secretary and approved with correction of initials of Dr. John S. Reagan.

Committee on constitution and by-laws was continued.

Society adopted a resolution endorsing the action of the Indiana State Medical Association in its efforts to get before the legislature a measure intended to isolate and segregate, and if necessary quarantine, indigent consumptives. Also endorsed a measure providing for a home for the advanced indigent consumptives in various sections or counties of the state. Also endorsed a measure demanding better medical inspection of schools together with power to control insanitary conditions in the homes of the pupils of the schools.

Election of officers resulted as follows: president, Dr. H. C. Robinson, Morgan County; vice-presidents, Dr. C. F. Neu, Marion County; Dr. L. A. Armstrong, Hendricks County; Dr. W. J. Sandy, Morgan County, and Dr. D. W. Sheek, Johnson County; secretary-treasurer, Dr. Daniel W. Layman, Marion County. Hendricks County was selected for the next meeting. Society also decided to hold semi-annual instead of annual meetings.

Following the reading of the paper by Dr. H. O. Pantzer, Indianapolis, the following resolution, introduced by Dr. Chas. P. Emerson, Indianapolis, was adopted:

Resolved, That we the members of the Seventh District of the Indiana State Medical Association assembled, realizing the great importance of the state medical school as the center of medical education of the state, and the most important of all agencies in the advancement of scientific and preventative medicine, do hereby present to the General Assembly of Indiana our petition that Indiana University School of Medicine receive its adequate and hearty support.

The president's address and the papers by Drs. Pantzer and Carter were referred to THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION for publication. (All are published in this number of THE JOURNAL.)

A vote of thanks was extended to the Morgan County members for the arrangements and entertainment of the society.

THE EARLY DIAGNOSIS OF CANCER OF THE STOMACH

Dr. Chas P. Emerson, Indianapolis, presented the following paper:

The early diagnosis of cancer of the stomach is a subject which for years has attracted particular interest because of the prevalence of the disease and the fact that unless the diagnosis can be made earlier than at present, surgical treatment will continue to be unsatisfactory. Of the text-book symptoms of this disease are, loss of weight and strength, dyspepsia, a palpable mass in the abdomen, the absence of free hydrochloric acid in the gastric juice. Many other symptoms have been suggested from time to time.

In the first place, the presence of the palpable tumor means that the disease is already so far advanced that operation certainly cannot effect a cure. There are many who believe that loss of weight and strength due to the general systemic intoxication from the tumor also indicates an advanced stage.

The earliest subjective symptom present in a large number of patients is the appearance of a dyspepsia different from any he has had before. Many of the patients give a past history of symptoms suggesting ulcer, etc., but the indigestion which arouses suspicion is of a quality which the patient has not had before and which began for the first time not over a few months ago. It may be very slight in degree. One of its most constant features is a loss of appetite for meat.

Vomiting, dilatation of the stomach and pain are not due to the cancer itself but to the stenosis at either the cardiac or the pyloric orifice, and differ in no way (except this rapid increase in severity) from these symptoms due to stenosis from any other cause.

The analysis of the gastric juice shows a decrease or absence of free hydrochloric acid. Later in the disease this is in a large measure due, not to cancer, but to the chronic gastritis which is a result of the disease. At that later stage there is a reduction in the total amount of chlorin secreted and the reaction of the gastric juice may be neutral or even alkaline. Early in the disease, however, while the amount of hydrochloric acid secreted is normal, there will be a diminution in the fraction of the free acid and this is due to the increase in the basic bodies some of which at least, are the result of the action of a ferment, provided by the tumor nodule itself. Of importance at this stage is a marked fluctuation from day to day in the amount of free acid, on one day considerable, on another day little, and other days none.

The lactic acid late in the disease is in a large measure a result of fermentation in the stomach cavity. This has not the same important significance that the early trace of lactic acid present has, while the total

acidity is still good which acid is probably the product of the ferment furnished by the tumor nodule itself.

Blood in the stomach contents is a very early and important symptom. This can be detected chemically in the gastric washings from those patients who are used to the tube and have strained so little when this is passed that the blood cannot come from a mechanical lesion of the mucosa. Later, it can be found in the stools. It is the constant presence of this blood over a long series of observations which is important. Of the other chemical tests of the gastric juice, urine, or stools, not one has been proven to be an early sign. The blood-serum test (hemolysis of normal red corpuscles injected under the skin), is an early sign in some cases but this test is positive in so many persons who have no cancer that it is of little value.

Discussion of Dr. Emerson's paper opened by Dr. Chas. Woods, Indianapolis. I would like to ask Dr. Emerson why the blood-test is not of more value.

DR. A. C. KIMBERLIN: It is important that the patient's environment and mental state remain the same. In some cases the mucosa of the stomach is very little disturbed, while in other cases catarrhal changes take place, and in these cases improvement follows on relieving the catarrhal condition of the walls of the stomach.

Dr. H. O. Pantzer, Indianapolis, cited a case of cancer of the stomach in one of his patients where the tumor was palpable. The patient was operated on and is still living.

Dr. A. B. Graham, Indianapolis, agrees with Dr. Emerson in all that he has said. As yet we have no symptoms which enable us to make an early diagnosis. An atrophic gastritis coupled with radiographic findings, such as a bismuth residue after six hours, with a normal stomach shadow on the screen, is considered positive evidence of small carcinoma of the pylorus. Even these findings cannot be said to be positive of an early diagnosis. Persistent symptoms of indigestion and the certainty that they are primary gastric symptoms which do not yield to rational therapeusis, should arouse suspicion and call for early exploratory laparotomy.

DR. A. M. COLE, Indianapolis: I want to say in discussion of the *x*-ray phase of gastro-intestinal diagnosis that several years ago I was skeptical that cancer of the stomach could be diagnosed by the *x*-ray; but during the last few years the results in my own work and that of many others have compelled me to change my views. I have had many cases of cancer of the stomach in which we were able to make an almost positive diagnosis, many of which have been confirmed by operation. The wonderful improvement in *x*-ray technic in the last few years has largely made this possible. The difficult thing is to interpret the *x*-ray plates. With the bismuth meals and a series of plates, in some cases as high as fifteen to twenty, we are mostly able to arrive at a probable diagnosis. This is usually easy in advanced cases but in beginning stomach cancer the Roentgen diagnosis offers more difficulties but can be made in, I think, the majority of cases. Of course the *x*-ray findings must always be taken with the history and the gastric analysis before conclusions are reached.

At the present time the majority of cases are sent to me too late. The diagnosis from the *x*-ray plates is easy but the cancer is inoperable. We must get these cases early if we expect to cure or relieve our patients as Dr. Emerson has so well demonstrated.

"Female Perineal Repair from an Anatomic Standpoint," was the title of a paper by Dr. Louis W. Armstrong, Danville. The results of Emmet's perineal operation are variable. In superficial laceration the results are generally satisfactory, but in deep lacerations close examination reveals the fact that the original floor of the perineum is incomplete. The result really depends on whether the levator ani muscle is involved in the laceration. This muscle forms the true floor of the pelvis and serves as its main support. The relation of the levator muscle to the external sphincter ani muscle is very important and should be remembered. The author quoted Watson's description of the musculature of the female perineum.

He mentioned the Charles Jewett new perineorrhaphy, the essential feature of which was bringing together by suture the two portions of the levator ani muscle between the vaginal floor and the rectum.

DR. BERNAYS KENNEDY, Indianapolis: The operation for repair of the female perineum advocated by Dr. Armstrong, is alright so far as it goes, inasmuch as it contemplates bringing the important supportive and compressive muscular structures of the pelvic floor into union. That point has been the central objective principle of recent years, in numerous operations of the kind.

I desire to call attention to the fact that as fascia is much stronger and more resistant than muscle, the union of the fascia and aponeurosis of the pelvic floor should be the chief object, and the muscles of secondary importance in the operation. The principles governing the restoration of the abdominal wall following celiotomies, should be followed in restoring the pelvic floor. The chief dependence is placed on accurate coaptation of the fascia of the abdominal wall, to prevent hernia and the same principle should be followed in the operation for repair of the ruptured or relaxed female perineum.

DR. H. O. PANTZER, Indianapolis: Dr. Ill's method of perineal repair which he has practiced for many years is something like the modification which Dr. Armstrong mentioned. Dr. Ill uses a full curved-handled needle and catches up the fibers of the levator ani and brings them together. Afterwards he unites the fascia with a few stitches.

"Brachial Neuritis," by G. B. Breedlove, Martinsville. Neuritis of the brachial plexus is rather a common condition that is usually mistaken for neuralgia, angina pectoris and rheumatic trouble in the shoulder and arm. According to Graves, brachial plexus neuritis is analogous to sciatic neuritis.

Brachial plexus is encountered mainly after middle life, and especially in rheumatic and gouty subjects. In the majority of cases there is a history of attack of lumbago or sciatica and a strong and well marked lithemic heredity. Women are more prone to this disease than men.

The first symptom is pain, the onset of which is often rather sudden. It is more or less constant with acute exacerbations, even paroxysmal at night. The pain is intensified on motion of the arm, so patients guard against any unnecessary movements. The pain is first localized in the region of the plexus or in the clavicular hollows, or under the scapula. Later involves the entire arm, extending to the neck and frequently affecting the sides of the chest. Tenderness is elicited on manipulation of the arm. The axilla is tender to the touch, and the tenderness can be traced

along the course of the nerves of the brachial plexus to their first place of distribution.

The skin over the arm is usually hypersensitive. The pain, a dragging ache at times, becomes almost unendurable. The muscles show signs of degenerative changes, the reflexes being diminished, rarely exaggerated. Dermal, epithelial and vasomotor disturbances are not infrequent.

The diagnosis is made by the character of the pain, tenderness, vasomotor and dermal changes, muscular atrophy. History or evidence of joint disturbance in gouty and rheumatic patients is important to bear in mind.

Brachial neuritis is almost always a protracted malady, but usually terminates in recovery. Relapses are likely to take place. In some cases disability due to weakness and pain and stiff joints, resulting from maintenance of arm in flexed position, persist more or less permanently.

Important to treat the gouty and rheumatic conditions. Counter irritations by means of blisters and Paquelin's cautery. Immobilization of arm. Passive movements—slight massage and electricity. Treatment includes hot fomentations, hot packs and water massage with electricity.

Discussion of Dr. Breedlove's paper, opened by Dr. Claude H. White, Monrovia. Brachial neuritis can be caused by a number of conditions, such as traumatism, tumors, aneurysms, pressure on arm when asleep, position on operating table when undergoing a surgical operation and pressure of crutches, tourniquet, etc., bone disease, especially syphilis, and tuberculous. While those stated are the main causes we have to consider colds, gout and rheumatism. When the cause of the neuritis can be ascertained and removed, the case will promptly be cured.

"Alcohol Injections for Trifacial Neuralgia," by Jewett V. Reed, M.D., Indianapolis. In the past I have found resection of the peripheral branches of the trifacial nerve very unsatisfactory in relieving the pain. The simplicity of the deep alcohol injections led me to try this method and so far it has proved very satisfactory. The technic consists in injecting the branch of the nerve as it leaves the skull, with 2 c.c. of 80 per cent. alcohol, to which cocain has been added to make a 1 per cent. solution.

This operation is simple, causes comparatively little pain, can be done in office and is devoid of danger provided the above technic is carried out. The cases treated by me in the past year, seven in all, have been entirely benefited with from one to three injections.

Discussion on Dr. Reed's paper, opened by Dr. David Ross, Indianapolis. The reports of excision of nerve and removal of ganglion have been unfavorable. The injection of alcohol has been very successful. It is easily repeated and there is no disfigurement.

"Nervous Disturbances in Hysterical Conditions of Traumatic Origin," by Dr. C. F. Neu, Indianapolis. Hysteria and hysterical conditions are one of the most difficult problems with which medical men have to deal, due partly to certain peculiar characteristics in the makeup, partly of hereditary and partly of acquired origin, and partly due to our lack of knowledge of the underlying anatomical characters of the disorders. Indiscriminate habits of life as well as some chronic diseases predispose thereto. Trauma, one of the most frequent of inciting causes. The emotional shock accompanying an injury of more influence than injury itself. Disturbances manifested may be grouped under the following heads: (1) mental; (2) sensory and

special sense; (3) motor; (4) vasomotor and trophic; (5) somatic.

Susceptibility to suggestion and creation of new symptoms which imitate those due to organic lesions are characteristic features. So also are their peculiar distribution, their oftentimes sudden disappearance and reappearance either in the same or in some other location. The diagnosis can only be made by a process of exclusion of all possible organic causes. The prognosis demands consideration of the patient's purely psychological characteristics of attention, of mood, of emotion, temperament, will and conduct. The treatment is one more of management than of medication.

Discussion of Dr. Neu's paper, opened by Dr. John Sluss. The great value of Dr. Neu's paper is in establishing what in reality is an unreality. If a patient has some form of paralysis which does not present an anatomical condition, the paralysis must be classified as a functional disorder. This is a subject for the psychologists to settle; a functional trouble is a subject for the neurologist to handle. The will is affected very largely in hysteria, when there exists oftentimes a mental deficiency. These nervous disturbances in hysterical conditions of traumatic origin (physical conditions) are merely adventitious expressions of mental deficiency. We will have to reach them by operation of the mind.

DR. REED: The nervous disturbances, namely traumatic neuroses, seen in the cases cited by Dr. Neu, are the type of cases that come to suit. The peculiarity noted is that when the cases are settled the neuroses disappear. I would like to ask to what extent the symptoms are real?

DR. NEU: (Closing) Hard to answer Dr. Reed's question. However, I wish to say some of the symptoms are real; it is not all malingering. The question of remuneration exercises a great influence over the condition.

REPORT OF CASES AND SPECIMENS

"Specimen Illustrating the Newer and Generally Accepted Pathology of Hypertrophied Prostate," by F. R. Charlton, Indianapolis. The old idea was that hypertrophied prostate meant a more or less diffuse involvement of the entire prostate gland. More lately, according to the teaching of Zuckerkandl and Marion, a large percentage of these conditions are looked on as practically new growths—adenomata, springing from the glands around about the vesical orifice or prostatic urethra, and being in most instances separated from the prostate proper by a distinct capsule. If this be true the operation through the perineum is not ideal. Growing out of this new teaching the suprapubic operation has received an enormous impetus and seems to be the anatomically correct procedure. Incontinence is entirely avoided and the sexual powers not only not impaired, but in many instances restored. This operation is receiving the support of almost all our most notable operators; Dr. Young of Baltimore being the conspicuous exception.

The specimen that I present is an ideal specimen for illustrating a new growth (adenoma). On close examination it will fail to show any evidence of ejaculatory ducts or verumontanum. This specimen was developed intravesically in a large measure and was enucleated without the removal of any portion of the prostate proper.

"Transposition of the Thoracic Viscera Without Transposition of the Abdominal Viscera," by Dr. W. T. S. Dodds, Indianapolis.

Report of Case.—Mr. J. W. McD., age 38, presented himself at my office Oct. 3, 1912, for examination and consultation. Family history negative. At 8 years of age he suffered from some acute disease of intestinal nature, and his physician informed him and his parents that his heart occupied the right side of his chest. The lad had no disturbance incident to any cardiac trouble and he and his parents were unaware of this anomaly until informed by his physician. From this time until he was 18 years of age he enjoyed the usual robust health of an active, vigorous, healthy boy.

At 18 he began work in a shop and soon noticed loss in weight, cough and a general weakness. Following closely on this he was attacked by a hemorrhage from his lungs, when a diagnosis of tuberculosis was made and confirmed, and he obtained an apparent cure of his trouble and was not disturbed until three years ago, when he had another hemorrhage while discharging his duties as foreman in a mechanic shop. Since this time he has been a chronic fighter against tuberculosis.

On my examination in October, I found the following: 1. The apex beat of the heart located in the mammary line on the right side of the chest in the sixth interspace. 2. The right side of the chest was decidedly depressed as compared to the left. 3. Respiratory movements very much diminished and considerable intracostal retraction. Physical examination revealed a decided percussion note over the entire right lung with hyperresonance over the left lung. Auscultation revealed harsh bronchial breathing over the right lung, with numerous dry friction sounds indicative of an old chronic fibrosis. The left lung revealed by auscultation exaggerated bronchovesicular breathing over the base and middle areas with diminished bronchovesicular sounds in the left apex, accompanied by moist and subcrepitant râles.

The result of the physical examination showed a chronic tubercular fibrosis of the right chest with an active tubercular process in the apex of the left lobe. A skiagraphic picture of the chest confirmed the findings and indicated that the left chest contained three lobes in the place of two, with the heart located in the right chest. Physical examination of the abdominal viscera revealed a normal situation of the organs. Sputum examination was positive for tubercle bacilli. This case is interesting because of the scarcity of such reports in literature. Frequent cases are reported of transposition of the entire viscera, but rarely of the thoracic viscera with normal abdominal situations.

Dr. Potter, Indianapolis, read a paper on "Some Triumphs of Pseudopsychotherapy," in which he pointed out the fact that anything which violated reason and good morals necessarily had within itself the elements of its own destruction. Nothing is perfect; but medicine tries to be rational and to do right by telling the truth and admitting its own ignorance of many things. It is irrational to the extent of silliness to make a pretense, much more to make a business, of dealing with serious wrongs of any kind without making a rational and serious effort to find out what is wrong. It is also grossly immoral to assume responsibility for which one has made no preparation. However, conspicuous such things may for a time become, they are inevitably self-limited by their own fundamental defects. It is easy to prate about religion and psychology as attachments to a therapeutic system, but the appeal to reason and the moral sense will in the end always be successful. It is the rankest irrationality and the most gross immorality to attempt

to deal with an empyema or dislocated hip without making the slightest effort to find out what is the matter. In the long run mankind will not stand for such doings. Therefore, if the medical profession will try to conduct itself according to reason and science and to do right in preparing itself for its responsibilities, acknowledging its deficiencies and always seeking more light, it will have nothing to fear in the long run from the competition of pseudopsychotherapy or erratic religious medicalism.

After the reading of Dr. Potter's paper the president asked Dr. A. C. Kimberlin, Indianapolis, President of the Indiana State Medical Association, to address the society. He spoke on "The Present Status of Medical Defense as Advocated by the Indiana State Medical Association."

Dr. Kimberlin said that medical defense has become one of the essential features of our State Medical Association. He reviewed the history and development of medical defense since the state society made it a part of its working organization. He cited the number of suits brought against physicians of Indiana for malpractice, and spoke of the increased suits in the last year. He gave reasons for this increase in number of suits for malpractice, and suggested remedies to reduce the number of suits. Among the remedies he suggested were: Better educational training; more frankness with our patients; coordination among the physicians themselves; better understanding between physician and physician, and between physician and patient. He advocated a medicolegal defense committee. The physician's interest should be properly taken care of at the next meeting of the state legislature. Legislative matter requires a legal head with medical backing.

Dr. E. V. Greene, president of the Martinsville Sanitarium, and the society's host, spoke on "Hydrotherapy at Martinsville." He spoke of the merits of hydrotherapy in certain diseases where home medical treatment will not reach the seat of trouble. He presented a cured case of sciatic rheumatism of long standing.

FORT WAYNE MEDICAL SOCIETY

Meeting of October 22

Society met in assembly room with 24 members present. Minutes of previous meeting read and approved.

Clinical cases. Dr. E. J. McOscar reported case, female, aged 37; third labor; previous labor seven years ago; difficult; paralyzed child; four days in labor. At the end of two days ruptured membrane. Dilatation not complete. Hypodermic of morphin given; no relief. Position mento-posterior. Attempted version; failed. Cesarean section made and child delivered, mother making good recovery.

Discussion: Dr. B. Van Sweringen: I once made a cephalic version in a mento-posterior position in a large pelvis. My experience is limited to four cases, three of which were relieved by podalic version.

Dr. B. Van Sweringen reported case which would seem to furnish an affirmative answer to the question: Is hematemesis from gastric ulcer an indication for operation? Patient farmer's wife, aged 58; never robust or rugged although mother of several children. History negative as bearing on last illness, until four or five years before death when she developed a stomach trouble, consisting of a feeling of nausea at times and

occasionally the rising of a hot fluid in the mouth. It did not occur before breakfast but might follow a meal after one or two hours. There were months at a time when she did not experience this symptom. Never vomited any blood or had a bloody stool so far as known until last illness.

Early last spring consulted physician because she was running down in health and strength and had an indefinite distress in abdomen. Put upon a ferruginous tonic of iron and arsenic for anemia but made no decided improvement. Some tarry stools which were attributed to the iron. October 1 awakened at midnight nauseated and vomited about a quart of blood, followed by passage of blood by bowels. Did not faint but grew very weak and pulse rose; ten hours later pulse 160 and mucous membranes blanched. Pulse fell to 140 after removal to hospital but soon rose to 172. Operation decided upon. Examination of stomach showed no induration anywhere and it was not filled by any kind of fluid, so a rapid posterior gastro-enterostomy was made, owing to patient's bad condition in the hope that if she lived drainage of stomach thus secured might obviate necessity for further surgery. Died half an hour later. Post-mortem examination of interior of stomach disclosed an ulcer about the size of a five cent piece, irregular in outline, with a thrombosed vessel at its bottom, located about 2 inches proximal to anastomosis on greater curvature. No induration about it and ulcer was confined to mucous membrane.

Why wait for such an accident in a case of gastric ulcer. This case had not been diagnosed as such, but from the history of tarry stools and anemia, it would seem that diagnosis could have been made by examination of stools and the fact of intermittent hemorrhage established. Would have been easy in this case to excise ulcer if there had been time to continue search. Is convinced now that recurring bleeding from a gastric ulcer, even though slight in amount, constitutes indication for operation.

Dr. Rosenthal: Have had several cases of recurrent gastric hemorrhage in which the abdomen was opened and a posterior gastro-enterostomy made with recovery of patient. I remember now a case of an elderly woman who had severe and frequent gastric hemorrhage in which I gave large doses of pure red gum which relieved the case at the time. Red gum is an astringent. It was two years before another hemorrhage took place which was again relieved by red gum. I know that there is a question as to the operation of every case of gastric ulcer.

Dr. Porter: If I were to operate a case for hemorrhage of the stomach, I would open the stomach and stop the hemorrhage rather than to do a posterior enterostomy. The best thing I have given for stomach hemorrhage is 15 drop doses of Monsell's solution every hour or two.

Dr. Gilpin: May I ask how a posterior gastro-enterostomy stops hemorrhage?

Dr. Rosenthal: The hemorrhage seems to stop in doing this operation because the stomach is drained from gas, blood and secretion by this method. Opening of the stomach and repairing the ulcer is a very excellent procedure.

Dr. McOscar: If there is not sufficient occasion for perforation, stomach washing may be of value. What is to be done to stop the hemorrhage and eradicate the source of bleeding?

Dr. Beall: Of course there are certain well-indicated procedures in peptic ulcer. In the ordinary peptic ulcer its presence alone does not indicate operation. That is, every case of gastric ulcer does not need an operation. Mentioned Friedenwald's cases in which 1,000 gastric ulcers were treated medically, part by Lennhart's diet, part by rest in bed and bismuth, and some of these cases were ambulatory cases. Results were good in all of the cases.

Dr. Porter, Jr.: In a case which had never had any symptoms of gastric disturbance we had an alarming hemorrhage, opened the stomach, found a funnel shaped ulcer on the posterior wall, with no induration. There was a clot in the bottom, displaced, and hemorrhage occurred. Excision of ulcer was made and recovery complete.

Dr. B. Van Sweringen, closing: If I had another case to treat I would do the same as I have in this one. I would rather do this than to do nothing while the patient is rapidly perishing. Surgery of the stomach has led to better diagnoses of ulcer cases. It is wise to suspicion ulcer more frequently than we do. Why not help a case to recover from hemorrhage, than operate it? But with rapidly increasing symptoms how can you be certain that the hemorrhage has been stopped?

Dr. Rosenthal reported two cases of gastric ulcer.

Dr. B. Van Sweringen read the paper of the evening on "Medical Supervision vs. The Open Door in the Regulation of the Social Evil."

Discussion: Dr. Rosenthal: I note by the evening paper that Dr. Hurty's new health bill proposes to make every doctor an integral part of the Board of Health. This might assist greatly in handling the social evil. The subject is an old one. In Strasburg I have seen the prostitutes brought in weekly, and they were well grounded in deceit in preventing doctors from detecting venereal disease. I deplore the action of sentiment in preventing the proper regulation of these diseases.

Dr. Porter: The average doctor is incapable of discussing off-hand this grave problem. We can only as physicians lay claim to a knowledge of venereal diseases, not to their regulation. We are all of one accord in the opinion that some measure should be adopted in regulation of this disease. I do not think that we should legalize this vocation any more than we should legalize burglary. The fear of the consequences of illicit intercourse is a factor in its limitation.

Dr. Greenawalt: The question of the social evil is very broad, and few have had the opportunity of studying it. I believe that these cases should be quarantined and that they should pay for their services and not have the tax-payer pay for it. Education seems to be the best remedy. Asexualization of degenerates is a good plan and should be carried out.

Dr. Weaver: It is not probable that Dr. Van Sweringen or any other man believes that he has the solution of this problem. The attempt at wiping it out with one fell swoop leads to the worst kind of prostitution, that is the clandestine prostitute. The only side of this question which interests us is the medical side. How are we going to find out where the sources of infection are unless we require the reporting of these cases? It seems that segregation will in a large part help to lessen these diseases. Relative to the economic condition, would it not be economy to prevent 20 per cent. of the blindness which annually come under state charge?

Dr. McOscar: We forget as physicians that we are one part of the state. We must have the state cooperation to fight this problem. You may talk all you please about education. Education to a man in his sober senses does lots of good, but in a drunken orgy he will forget all his education, and a drunken orgy can turn out in one night more gonorrhea and syphilis than all the physicians in Fort Wayne can straighten out in a year.

Dr. Gilpin: Dr. Warthin, of Ann Arbor, has been delivering lectures for several years showing the worst sides of syphilis and gonorrhea to the students of the University. There is just as much venereal disease among the student body as there was before these lectures were begun.

Dr. Kruse: Segregation of the vice district and placing it under the control of the Board of Health is not a good thing. As soon as we report the cases to the Board of Health they would stay away from the doctor and would be neglected.

Dr. Bruggeman: It occurs to me that when you contemplate the regulation of prostitution you must remember that these people are plying a dangerous trade and that the public has the right to supervise all dangerous trades. Dr. Bruggeman then outlined the law regulating the traffic in Dresden.

Dr. Porter, Jr.: I am an abolitionist, not because I think it will wipe out vice any more than the abolition of drink will eliminate drunkenness. That it does help is certainly true. What you need most is public opinion against this thing and it will be wiped out or at least greatly diminished.

Dr. Beall: Fundamental causes of venereal diseases are two in number: The nature of the individual and the fact that certain bacteria can grow in these cases. Attempts at regulation have been made for years without much benefit. There is no reason why education in sexual matters should not continue, but the supervision of vice by boards of health and police boards cannot help but do good.

Dr. Van Sweringen closed the discussion.

Bill of Gladys Miller for \$16.78 allowed.

Motion carried that Dr. Weaver be appointed a committee of one to confer with the public library as to the disposition of the medical books contained therein.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of October 29

Society met in regular session in the assembly room with 16 members present.

Clinical cases. Dr. Gilpin reported a case of persistent hiccup of 27 days' duration. Everything known in *materia medica* was given this case. Finally got better. He died recently of rheumatic fever owing to cardiac failure.

Dr. McCaskey reported a case of universal hyperalgesia. Patient is a victim of pulmonary tuberculosis. Has some rise in temperature. This patient could not be touched without considerable distress. As a child she could not stand rough handling.

CASE 2.—Obstruction of esophagus. This patient had had no difficulty in deglutition. Suddenly felt a pain during meal-time. Attempted to pass a stomach tube and could not do it. Filled esophagus with bismuth and x-ray finding negative. Finally condition lessened and the patient recovered. I am inclined to think that a spicule of bone traumatized the mucous membrane of the esophagus and produced a spasmodic stricture.

The paper of the evening was by Dr. L. T. Rawles, on "The Treatment of Cystitis with the Vapors of Nascent Iodin."

Discussion. Dr. Barnett: I think a good deal of iodine treatment of tuberculous ulcer of the bladder. The bladder *per se* is rarely affected except by the coli communis, sometimes by the streptococcus and rarely by the gonococcus. But usually infection of bladder does not occur unless drainage is poor. The bladder washes out most of this infection with the urine. The most useful application is nitrate of silver and boric acid. Theory of urinary antisepsis has been exploded. No effect is given by this method. The change from a highly acid urine to an alkaline one is not essential to the treatment of cystitis. Most bladders show mixed infection.

Dr. B. Van Sweringen: Symptoms of iodism are produced in some of these cases. The epithelium of the bladder has not been supposed to have absorbed very readily. It is a question whether the effect is from the local treatment alone or from absorption.

Dr. Duemling: The great trouble in treating the bladder aside from its anatomical location is the fact that the bladder is full of glands and the infection is buried. Distention to capacity helps to straighten out the folds and allows solutions to get to the infection.

Dr. Weaver: It seems to me that nascent iodine vapor remains only a short time as vapor, but iodine crystals are deposited in the bladder.

Dr. Bruggeman: I would have some idea of what kind of a cystitis I was going to treat by this method. I can believe that it is applicable in old chronic cystitis but I doubt its efficiency in the acute cases.

Dr. Rawles closed the discussion.

Bill of A. M. A. for printing of By-Laws, of \$6.00 allowed. Express charges of 40 cents allowed Dr. Weaver.

Motion carried that committee be authorized to arrange a dinner for November 26.

Adjourned. G. VAN SWERINGEN, Secretary.

INDIANAPOLIS MEDICAL SOCIETY

Meeting of January 7

Society called to order at 8:30 by president with 148 members present. Reading of minutes dispensed with.

Applications of Clarence Lucas and L. F. Robinson read for first time. Applications of B. S. Potter, J. W. Emhardt, W. F. Kelly, C. W. McClintock, B. R. Rickards and C. M. Cain were read the second time.

Council reported recommending election of J. A. Garrettson, Mason B. Light, Lee W. Barry, Klore W. Hidy and Simon J. Young. Society voted to accept recommendation.

Dr. W. D. Hoskins read report of membership committee. Report adopted.

Dr. Lillian C. Lowder read some resolutions concerning death of Dr. Helene Knabe which provided that a fund be created for prosecution of alleged murderers of Dr. Knabe. Matter laid on table.

Report of secretary-treasurer read and adopted.

Election of officers for 1913 resulted as follows: President, Dr. C. E. Ferguson; vice-president, Dr. J. A. Pfaff; secretary-treasurer, Dr. A. E. Guedel; new members of council, Drs. T. C. Hood and J. A. McDonald; delegates to State Association for two years, Drs.

John W. Sluss, Theodore Potter and S. E. Earp; for one year, Dr. L. A. Ensminger; alternates for one year, Drs. M. N. Hailey and Thomas J. Dugan.

Dr. Ferguson was escorted to chair and presented with gavel by Dr. Gabe, retiring president.

Dr. Gabe gave his address as retiring president. Things for the general betterment of the society were discussed. The acquiring of property for a home was advocated. Discussants who fail to appear should be disciplined in some way. Money should not be expended except for some definite purpose.

Adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of January 14

Meeting called to order by president. Attendance 87. Application of Dr. Aran Sheridan read for the first time. Application of William Franklin Baker read for the second time. Dr. McKinstry reported for the committee on arrangements for manner of reception of Dr. Witherspoon that although no definite programme had been arranged it was decided that plan of entertainment be an informal reception.

Dr. Wishard made motion to the effect that a committee be appointed to receive Dr. Witherspoon and arrange definitely the program. Motion carried. Chair appointed Drs. Wishard (chairman), Emerson and Kimberlin.

Dr. Wynn made motion that society remember Dr. W. H. Wishard on his 97th birthday with a letter of congratulation. Motion carried.

Dr. Noble made a motion to remove old chairs and replace them with new ones that do not squeak, and that a runner of carpet be placed from door to chairs so that there would be no more noise to disturb the meeting. Carried. Dr. Earp moved that a floral offering be sent to the funeral of Mrs. Oaks as a token of respect and esteem. Carried.

First paper of evening was read by Dr. C. P. Emerson. Subject, "Importance of Latent Diseases in Diagnosis."

During recent years as a result of the improved methods of diagnosis, the discovery of specific germs, the tests of serum reactions to prove their presence, of roentgenology, and lastly, and perhaps most important, the results in the advance of modern surgery, much light has been thrown on a large group of patients formerly called neurasthenics. By neurasthenia we mean the symptom complex as earlier described, a complex including easy fatigability, both mental and physical, disturbances of associative memory, and symptoms which would seem to be entirely of psychic origin. We would not include cases with obsessions and phobias, or other mental or emotional stigmata, nor would we include cases whose present condition is easily accounted for by strains which they have suffered. This is not an arbitrary limitation of subject but a very natural one if one is always careful to ask, not the patient, but his relatives and friends, whether his present mental tone is normal to him or merely an exaggeration of that present in childhood and to a lesser degree while he is enjoying good health.

Hysteria, psychasthenia, and mild mental trouble are differentiated without great difficulty if we are careful to analyze carefully the present condition and to obtain accurate information concerning patient's childhood and those periods which to him seem normal. There is no doubt but that many of these cases are

due to latent organic diseases which do not give characteristic or localizing symptoms but merely "sap patient's strength."

Among these diseases are tuberculosis, chronic Bright's disease, diabetes, malignant disease, pernicious anemia, leukemia, chronic tonsillitis, eye strain, chronic appendicitis, gastric or duodenal ulcer, and disturbances of the thyroid and pituitary gland. While in all cases we cannot make a positive diagnosis of underlying condition yet if, as a working hypothesis, we treat the diagnosis of neurasthenia as merely a confession of ignorance and then seek diligently for the underlying disease, we certainly will render a favor to many patients, for the hope of medicine, surgery and psychiatry is an earlier diagnosis of the conditions to be treated.

Discussion opened by Dr. Wynn. He chose for his classification of neurasthenia its division into two groups, 1. Essential; 2. Neurasthenia associated with organic disease.

In essential neurasthenia there is no determinable physical cause outside of central nervous system and this type not only exists but is quite frequently met with. It is probable that after these cases have gone on for some time, there develops in central nervous system in certain groups of cells, a physical change of some sort; dependent upon oft repeated excitation of these cells. The child assumes a certain clonic facial spasm and repeats this over and over again until the nerve cells issuing the impulse, by this frequent excitation may take on an actual physical change—not yet determinable microscopically never the less existent—so that volitional control of that impulse becomes lost. This is habit spasm. So it is in essential neurasthenia. Oft repeated excitation of certain nerve centers governing sensation in remote parts of body, may cause in these cells certain physical changes as yet unidentified, which destroy for time being volitional control over them by patient. This cell change in central nervous system is physical basis, and the only one in a large number of cases of neurasthenia. To operate on assumption of remote organic causation of such nervous symptoms in these cases serves only to direct attention of patient more forcibly to condition in question increasing rather than lessening excitation of cells in central nervous system, thus doing harm instead of good.

Neurasthenics are often treated for organic conditions that do not exist or, if they do exist, are in no wise responsible for nervous manifestations present. Proper treatment of this condition lies in forceful education of the patient to control the nervous impulse, and starting opposite cells to working by strongly directing attention of patient elsewhere than his symptoms.

Not only does neurasthenia exist without causative organic lesion in remote organs, but if it is prolonged it will become in itself the causative agent of its own lesion in the central nervous system.

Dr. J. A. MacDonald: Physicians are too easily contented with a diagnosis of neurasthenia. The most careful differentiation should be made between psychasthenia and neurasthenia with the accepted premise that any patient presenting a so-called functional neurosis in whom we cannot establish a diagnosis of psychasthenia and who does not present obsessions or phobias and who does not recover entirely under a reasonable period of mental and physical rest, must be searched most painstakingly for incipient organic visceral dis-

ease. Hence the word neurasthenia should be a stimulus for the doctor for further and more careful effort in physical and clinical diagnosis. Often is the so-called case of neurasthenia merely the earlier stage in the development of a true general paresis.

Often in the case of nervous dyspepsia if we search long enough and intelligently enough we will find an organic lesion in stomach or duodenum. Early operation on suspicious cases is often justifiable and frequently an ulcer will be found.

Habit spasm must not be too readily disassociated from chorea. Cases of facial tic in the adult frequently give a childhood history of chorea.

Second paper of the evening was read by Dr. M. J. Spencer, subject, "Typhoid Fever."

No fixed diet can be found for typhoid patient. The diet must be varied to suit case in hand from nothing but water to cereals, milk and solid foods including meat. By proper attention to diet much other treatment is rendered unnecessary. The bowels give most reliable information as to whether or not the diet in use is satisfactory. A clean alimentary tract is essential to successful care of typhoid. Calomel and castor oil give most uniformly good results as a cathartic. An unclean bowel predisposes to deep ulceration, hemorrhage and perforation. One watery stool a day is desirable. Intestinal sepsis keeps down temperature, prevents secondary infection, reduces tympanitis and renders whole course of disease of a milder nature. Tympanitis is not a symptom of typhoid but a symptom of mismanagement of the condition. The lower bowel cannot be sterilized. Only the stomach and a short portion of upper small intestine can be made uninhabitable to the pathogenic organism. The salicylates (salol) have not been superseded for this purpose. May be given throughout disease unless diminished excretion of urine, albuminuria, or presence of phenol in urine develop, when it should be stopped.

Hydrotherapy is sometimes overdone and produces shock and depression when injudiciously used.

A mixed diet is preferable in the usual case but must be regulated to suit the individual case. Milk, eggs, oat meal gruel well cooked, beef juice, coffee if patient has been accustomed to using it, small portion of wine, orange or lemon juice, etc., are applicable. Gelatin is of some value as a food and may be of assistance in controlling capillary bleeding from inflamed mucous membrane. Beef juice properly expressed is not only a food but the serum is a cardiac tonic. Coffee is contra-indicated by meningeal symptoms.

Patient should be fed in small quantities every three hours as long as this schedule does not interfere with his rest.

Discussion—Dr. T. W. DeHaas: Condition of bowels in early typhoid is important. Bowel washing is better antipyretic than antiseptic measure. Calomel is a valuable diagnostic agent often clearing up in a short time conditions easily mistakable for typhoid. Epsom salts, by depleting mucous membrane of bowel relieves congestion and is therefore of value as a cathartic. The bowel that is stimulated to action gives less trouble. Diarrhea is less harmful than constipation and from one to four stools daily is desirable. The lazy bowel becomes tympanitic and tympanitis predisposes to hemorrhage and perforation. Bowel hygiene should be conducted by both drugs and washing. Preferable drugs are epsom salts, castor oil and

salol as the antiseptic agent. Hydrochloric acid is well given by adding a few drops of dilute solution to a glass of water and allowing patient to sip it ad libitum. Urotropin is valuable in the convalescent. Strychnine should not be held in reserve to meet collapse but should be given early to prevent it. Camphor in oil solution administered hypodermically is a dependent stimulant in collapse.

Patients will come out of typhoid in better condition if they are fed liberally, such foods as milk toast, potato soup, fruit juices, etc.

Dr. F. O. Dorsey: Too little attention is given to prophylaxis. Physicians are often to blame in that they leave too much to nurse or attendant as to use of antiseptics, disposal of stools, etc.

Feeding should be conducted with idea of furnishing sufficient calories in foods which require the least expenditure of energy on part of patient to digest and assimilate, and yet keep up nutrition. No drug will render intestinal tract free from bacteria. Simple alimentary toilet will give better results.

Cathartics are of value when other means of maintaining cleanliness of bowel are not to be had. Hospitals which show lowest mortality rate in typhoid do not use cathartics.

Urotropin to sterilize urine is a good prophylactic agent.

The tub bath when it is applicable will give better results than any other form of bath. It should not be withheld until the temperature is high but should be commenced early in case and continued throughout unless as in rare cases it is for any reason contra-indicated. By its judicious employment mortality rate can be lowered decidedly.

ARTHUR E. GUEDEL, Secretary.

Meeting of January 21

Meeting called to order by vice-president, Dr. Pfaff. The regular business of the evening being dispensed with, Dr. Pfaff invited Dr. W. N. Wishard to take the chair and present Dr. Witherspoon, President-Elect of the American Medical Association.

Dr. Witherspoon addressed the society using as his subject "Medical Organization." The greatest opportunity before the profession to-day is along the lines of effecting a harmonious and aggressive organization of medical men. The field of activity in medicine is so great that there must be organization. The doctor's work is a work for the good of humanity and compares favorably with the ministry. It is the purpose of organized medicine to give to the people healthful communities, to rid the profession of the quack, to rid the people of patent medicines and to establish better medical standards. Our facilities for the study of medicine to-day are good but there is yet much room for improvement. The field of medical education is the greatest field for organized endeavor that we have. Great credit is due the older students, who in spite of very poor facilities for study in their time, did great work. In a few years from the present time the medical course will consist of five years study instead of four as it is now.

Our American physicians are not assertive enough. That is why live stock gets more legislative consideration. What the profession needs is more men of honesty and strength.

An informal reception followed Dr. Witherspoon's address. Meeting adjourned.

ALFRED HENRY, Secretary pro tem.

Meeting of January 25

The society met at the science building of the Eli Lilly company as the guests of the company. Demonstrations of methods of drug standardization were conducted under the direction of Dr. C. C. Haskell. The society made a tour of inspection of the science building after which an informal smoker was held in the demonstration hall.

All regular business was dispensed with by the society.

ARTHUR E. GUEDEL, Secretary.

ADAMS COUNTY

The Adams County Medical Society met in regular session at the office of Dr. P. B. Thomas, with nine members present. Drs. Albert E. Bulson, Jr., and Budd Van Sweringen, of Fort Wayne, were also present.

The feature of the meeting was a paper on "Earache and the Discharging Ear," by Dr. Albert E. Bulson, Jr. The paper was carefully prepared to give the general practitioner a better and more comprehensive knowledge of what is too commonly considered a small thing. Dr. Bulson emphasized the seriousness of a suppurative otitis, both as to its acute and chronic dangers. He strongly emphasized the institution of early drainage as the best preventative and curative measure. General discussion.

Adjourned. C. C. RAYL, Secretary.

JACKSON COUNTY

The regular meeting of the Jackson County Medical Society was held the first Thursday in December.

Election of officers for the year 1913 resulted as follows: President, H. R. Luckey; vice-president, Neal Matlock; secretary-treasurer, L. B. Hill; censor, J. K. Ritter; delegate to State Association, G. G. Graessle; alternate, L. B. Hill; delegate to district society, G. H. Kammon. It was decided to hold the annual banquet of the society the last Friday in the year.

At the banquet following the scientific session, the following toasts were given: "Arteriosclerosis," W. T. S. Dodds, Indianapolis; "The Doctor's Reward," M. F. Gerrish; "The Country Doctor," N. G. Harrod; "The Doctors I Have Known," D. J. Cummings, Sr.; "Modern Medicine," G. G. Graessle; "The Bachelor Doctor," C. E. Gillespie; "Dawn, Noontide and Eve," A. G. Osterman.

Adjourned. L. B. HILL, Secretary.

JEFFERSON COUNTY

The Jefferson County Medical Society met in regular session January 8, at Madison.

Dr. George E. Denny presented a patient affected with tuberculosis of both testes, also involving epididymis and seminal vesicles, of 7 or 8 years standing.

Dr. Denny read a paper on "Infections of the Hand," which was very interesting and instructive, and which with the discussion that followed brought out some very useful points in the treatment of this condition.

Fifteen out of the nineteen members of the society were present at this, the first meeting of the new year.

Adjourned. FRED C. DENNY, Secretary.

KNOX COUNTY

The Knox County Medical Society met in the City Building, Vincennes, December 10, for a short business session, with 24 members present. The annual election of officers resulted as follows: President, Dr. H. W. Held; vice-president, Dr. C. W. Benham; secretary, Dr. H. D. McCormick; censor, Dr. A. W. Myers; delegate to State Association, Dr. C. S. Bryan; alternate, Dr. J. A. Smadel.

Society voted to pay the expenses of its secretary to the next meeting of the Indiana State Medical Association.

A banquet at the Kaiserhof Hotel followed the scientific session.

Adjourned.

H. D. McCORMICK, Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held January 28, with ten members present. The new programs for the year were not yet out of press.

Dr. C. C. DuBois, Warsaw, gave a very instructive talk on pellagra.

Dr. M. G. Yocum, Mentone, reported on a number of cases he had seen at the meeting of the American Medical Association at St. Louis, dwelling particularly on the clinical aspect of the cases.

Adjourned.

G. W. ANGLIN, Secretary.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held in Gary Public Library, Jan. 9, 1913, with 23 members present. Dr. Evans was appointed president pro tem.

The minutes of the December meeting were read and approved. Applications for membership were received from Drs. Johns and Herskovitz, of East Chicago, and A. J. Miller, of Hammond. Drs. Scull and DeLong were appointed to act with Evans as the Board of Censors. Upon receiving a favorable report from the censors, it was moved by Dr. Howat that the rules be suspended and the petitioners be declared elected. Motion carried.

The secretary made an explanation as to the delay in getting out the first copy of the *Monthly Bulletin*, and promised the same would be issued the first of February.

Dr. Hosmer gave a talk on his attendance upon the Clinical Congress of North America, held in New York in November. He detailed his experiences at the various Clinics, probably the most interesting of which were those having to do with transplantation of bone. He gave detailed description of several such cases, and answered the queries of various members.

Dr. McMichael reported a case of Compound Fracture of both the Tibia and Fibula, which, after a delayed union, was treated by opening it up and applying a Lane plate. Healing was very prompt, following this treatment, and the union was perfect. The plate has not been removed, and although several weeks have passed, it has caused no discomfort.

On motion of Dr. Goldberger, the secretary was instructed to send letters of condolence to the families of Drs. Kelly and Gordon.

Adjourned.

E. M. SHANKLIN.

MADISON COUNTY

The Madison County Medical Society met in the Public Library in Anderson, January 28, at 4:30 p. m., president, Dr. M. A. Austin, presiding. There were twenty-three members and eight guests present, among which latter were Drs. G. W. H. Kemper and I. N. Trent, Muncie; Dr. Nettie B. Powell, Marion, and Drs. Waters and Stout, Middletown. Minutes of previous meeting read and approved.

Dr. Louis Burckhardt, Indianapolis, read an excellent paper on "Slow Labor." He explained the condition under which the practitioner may deviate from the text-book rule not to interfere with Nature, that he might be permitted to interfere with the more or less normal case of labor in order to save himself time without injuring the interest of the patient. In the first stage of labor where the pains were strong but absence of the bearing impulse, give a dose of morphin and wait; on the other hand with ruptured membranes, full dilatation of the cervix and head firmly wedged in the pelvic brim at its largest circumference we may apply the forceps and terminate labor without slipping forceps or injury to the maternal soft parts.

Discussion by Drs. I. Miley, Perce, Brownback, Stewart, Armfield, Powell, Kemper and Trent.

Following the scientific session the society adjourned to the Grand Hotel, where a six-course banquet and round-table discussion completed the program.

Adjourned.

ETTA CHARLES, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session January 30 at Plymouth City Hall, with six members present.

Dr. Preston was elected president pro tem. and Dr. Loring secretary pro tem.

The committee to revise the fee bill reported and was continued until next meeting.

The committee on program reported a program for the entire year, and it was adopted with the provision that the secretary fill in all vacancies caused by removals or death.

The committee appointed to obtain a meeting place at the hospital was given further time.

Committee on illegal practitioners was granted further time.

Dr. Eley's paper was postponed until the next meeting.

Adjourned.

S. C. LORING, Secretary pro tem.

SPENCER COUNTY

The Spencer County Medical Society met in regular session with the president, Dr. S. C. Lang. Minutes of last meeting read and approved.

Dr. C. S. Baker reported a case of hematoma which formed after birth. Was advised that if no pulsation existed to open under strict antiseptic precautions.

Dr. S. C. Lang reported a child with six fingers and toes on each hand and foot, the sixth one which he removed with no inconvenience to child.

Dr. H. G. Weiss gave a talk on tuberculin, which he considers the greatest of the age in vaccine therapy. Had no experience except with the old form which has given good results in his hands in every case except one. Would not place its importance above that of good hygienic surroundings, nutritious food, fresh air, etc. In giving the tuberculin, Dr. Weiss begins with

1/10 c.c. injected into the arm, doubling every fifth day until enough is given to keep just below reaction.

In the discussion, Dr. J. R. Lang said that more is being done for this class of cases than any other.

The treatment of Dr. Friedmann, of Berlin, was discussed.

Dr. J. R. Lang applied for reinstatement in the society, and was accepted.

The election of officers at the December meeting, resulted as follows: President, Shirley C. Lang; vice-president, Geo. W. Harrom; secretary-treasurer, H. Q. White; censor for one year, S. P. Gwaltney; censor for three years, H. G. Weiss.

Adjourned.

H. Q. WHITE, Secretary.

SULLIVAN COUNTY

The Sullivan County Medical Society met in regular session January 8, at 8 p. m. in the City Hall, Sullivan, with 12 members present. Visitors, Drs. W. E. Kessinger and T. M. Staley, of Bicknell. Minutes of previous meeting read and approved. Committee on program read report and same was ordered printed in the annual bulletin.

The censors having reported favorably, Drs. F. M. Dukes and A. W. Hadley were elected to membership.

Committee on necrology reported death of Dr. S. J. Alsmen, of Pleasantville, and suitable notice was ordered printed in the bulletin.

Committee on Quacks and Frauds reported the submitting of evidence to the grand jury against a "Dr." Hicks who was practicing without a license.

Clinical case presented by Dr. J. R. Crowder: Clerk, aged 20 years, complained of being tired and sleepy, short of breath, and swollen abdomen. Has a primary enlargement of spleen extending below umbilical line, secondary enlargement of liver, jaundice, ascites. Urine contains albumin, casts and bile. Blood shows reds, 2,500,000; whites, 4,400; differential count, polymorphonuclears 74 per cent.; large mononuclears, 17 per cent.; lymphocytes, 8 per cent.; transitionals, 1 per cent. Diagnosis, Banti's Disease. Patient examined by all present, and a general discussion followed.

Dr. C. F. Briggs presented a paper on "Enuresis in Children." Discussion was general and animated, bringing out much difference of opinion as to the underlying causative factors.

Dr. J. H. Neff presented a paper on "The Relation of the Health Officer to the Public."

Scientific session was followed by a luncheon given by the local physicians.

Adjourned.

JAMES B. MAPLE, Shelburn.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

CALCIUM GLYCEROPHOSPHATE is monohydrated normal calcium glycerophosphate $\text{Ca}(\text{CH}_2\text{OH}.\text{CHOH}.\text{CH}_2)\text{PO}_4 \cdot \text{H}_2\text{O}$, containing 90 per cent. of anhydrous salt. It is a white powder, almost tasteless, slightly soluble in water, easily soluble in dilute acids. Glycerophosphates were introduced as "nerve foods" on the belief that the phosphorus was in a readily assimilable form. Recent animal experiments indicate that glycerophosphates possess no advantage over inorganic phosphates in phosphorus metabolism. Dose 0.2 to 0.65 Gm. in powders, wafers, capsules or tablets suspended in water or syrup, or dissolved by the addition of sufficient citric acid or diluted hydrochloric acid.

Calcium glycerophosphate, Monsanto, is a non-proprietary article and complies with the tests laid down for calcium glycerophosphate. Monsanto Chemical Works, St. Louis, Mo. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

SLEE'S REFINED AND CONCENTRATED DIPHTHERIA ANTITOXIN is prepared according to Banzhaf's method. Supplied in packages containing 1,000, 2,000, 3,000, 4,000 and 5,000 units, in vials and also in syringes. The Abbott Alkaloidal Co., Chicago, Ill. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

VACULES CORNUTOL contain cornutol 30 c.c. in sealed ampules. The air in the container is removed before sealing whereby, it is claimed, deterioration is retarded. H. K. Mulford Co., Philadelphia, Pa. (*Jour. A. M. A.*, Jan. 4, 1913, p. 45).

REFORM IN MEDICINES

COMMERCIAL HASTE VERSUS SCIENTIFIC CONSERVATISM.—An example of business haste was furnished by an announcement made April last at the International Congress on Tuberculosis. Countess von Linden and her co-workers read papers at the Congress describing a new remedy for tuberculosis, the result of work carried out under the advice and direction of the late Professor Finkler. The remedy was stated to be a combination of iodine with methylene-blue and a combination of copper with lecithin, which was to be put on the market by a German firm "as soon as possible." Professor Selter now reports that in experiments made by him no marked difference was observed between the treated and the control animals. His clinical trials also showed no decisive benefit from these remedies. Selter protested to Countess von Linden and her colleagues against the premature publicity which was contemplated, but without avail. In the published reports no mention of Selter's unfavorable results was made. No doubt the connection with a commercial concern is strong temptation to optimism in such research (*Jour. A. M. A.*, Dec. 28, 1912, p. 2319).

DEMAND CLEAN ADVERTISING.—There are many medical journals which editorially rank high and for which a subscription price is charged that makes the carrying of advertisements for worthless proprietaries entirely unnecessary. For instance, there are the *Medical Record* and the *American Journal of Obstetrics* published by William Wood & Co., the *Annals of Surgery* (J. B. Lippincott Company), and the *American Journal of the Medical Sciences* (Lea and Febiger), each of which costs \$5 per annum—sufficient to warrant a demand that the advertising pages be kept clean. While sporadic protests against the nostrum advertisements will be without avail a protest from a hundred subscribers to these journals, which are run merely as a financial venture, would quickly have the desired effect. That an advertising policy which rejects nos-

trum advertisements is not impossible of attainment in privately owned medical journals has been proven by three high grade publications, the *Cleveland Medical Journal*, the *Southern Medical Journal* and *Surgery, Gynecology and Obstetrics* (*Jour. A. M. A.*, Jan. 4, 1913, p. 53).

FRAUDULENT ADVERTISING IN HIGH-CLASS MEDICAL JOURNALS.—It is the favorite retort of the publishers of some medical journals, when criticised for carrying advertisements of fraudulent proprietary remedies, that they are just as capable of determining what constitutes a fraudulent or worthless preparation as is the Council on Pharmacy and Chemistry. The absurdity of the contention is well illustrated by the appearance in the *Annals of Surgery*, which claims that its advertisements are submitted to, and passed on by, some of the most noted surgeons in the country, of an advertisement of Mothersill's Seasick Remedy, a rank patent-medicine advertised under false claims (*Jour. A. M. A.*, Jan. 4, 1913, p. 57).

THE CONSTRUCTIVE WORK OF THE COUNCIL ON PHARMACY AND CHEMISTRY.—During the first two or three years of its existence, a single phase of the work of the Council on Pharmacy and Chemistry—the exposure of the many worthless or fraudulent proprietary medicines foisted on the medical profession—attracted attention. The manufacture of a satisfactory brand of calcium glycerophosphate by the Monsanto Chemical Works is the direct result of the report of the Council on the poor quality of the calcium glycerophosphate on the American market. Vacules Cornutol represents a further improvement by the H. K. Mulford Co. in the reliability of their ergot preparations. Experiments having shown that the deterioration of ergot preparations is retarded when they are kept away from air, the firm now offers its cornutol in sealed containers from which the air has been removed (*Jour. A. M. A.*, Jan. 4, 1913, p. 58).

MICAJAH'S UTERINE WAFERS.—This nostrum was analyzed in the A. M. A. Chemical Laboratory and found to consist essentially of burnt alum, boric acid and borax. These are the "well-known, approved and time-tried antiseptics, astringent and alterative medicaments" for which Micajah & Co. claim so much. That a mixture of borax and alum may be of value in some cases can easily be granted. To say, however, that such medicaments will quickly and permanently cure gonorrhea, urethritis, endometritis, etc., is foolish, false and vicious. In spite of the fact that the medical profession has been apprised of the fraud and deceit connected with its exploitation, this preparation is still advertised in several medical journals. Some of these are *Medical Record*, *Therapeutic Gazette*, *Medical Times*, *New York Medical Journal*, *American Journal of Surgery* and *Interstate Medical Journal* (*Jour. A. M. A.*, Jan. 4, 1913, p. 65).

RHEUMATICIDE.—The so-called Wallace Treatment for Rheumatism is marketed by the Rheumaticide Company of New York City. It is claimed that it cures gout, lumbago, sciatica and rheumatism. Rheumaticide is for hypodermic use and is supposed to be administered by a physician. Examination in the A. M. A. Chemical Laboratory indicated that the essential constituents were uncombined iodine and iodo-phenol with traces of hydriodic acid. A preparation obtained by mixing the following was found, after standing twenty-four hours, to have properties quite similar to those of Rheumaticide: carbolic acid 2 parts, glycerin 4 parts and iodine 4 parts. And yet the exploiters call it a "serum" and inveigh against the use of drugs in this disease! (*Jour. A. M. A.*, Jan. 4, 1913, p. 66).

KOSINE.—Kosine, Kosine Company, Washington, D. C., is sold as a cure for epilepsy. According to analysis by the New Hampshire State Board of Health, it contains antipyrin 0.64 per cent., ammonium bromid

4.97 per cent., and sodium bromid 2.4 per cent., and thus has a composition similar to that of many other "epilepsy cures" (*Jour. A. M. A.*, Jan. 4, 1913, p. 66).

SOME FOODS AND DRUGS IN 1912.—That the forces devoted to the maintenance of high standards in American food and drug products are still alert and progressive is shown by the latest annual report of the Connecticut Agricultural Experiment Station. The need of a continued vigilance in the enforcement of food and drug laws is best shown by the statement that "of 757 samples taken by the commissioner under the law, 372 were found to be either adulterated, misbranded, or below standard." The general unsatisfactory character and the misleading claims which are made for so-called gluten foods is pointed out. Of the proprietary medicine family many of our old acquaintances receive a deserved exposure. There is Gouraud's Magical Beautifier, Spiro Powder, Poslam, Doctor Franck's Grains of Health coated with real silver and selling at \$33 per pound, Pink Pills for Pale People, Kargon, Schenck's Pulmonic Syrup, Thialion, Ely's Cream Balm, Cubanos, Dr. Pierce's Golden Medical Discovery made from a veritable botanic garden, Peruna and the A. D. S. tribe, Rheumatogen, Pinex and the dignified Sanatogen. The report also shows that besides senna, Epsom salt is now added to some of the "fig" syrups (*Jour. A. M. A.*, Jan. 11, 1913, p. 132).

SUCCESSFUL BUSINESS AND PATENT MEDICINES.—In appreciation of the changing public attitude towards "patent medicines" the mail-order house of Sears, Roebuck & Co., have discontinued the sale of patent medicines. Hereafter the firm's sales will be confined to simple drugs which are used as household remedies and a few harmless and safe official preparations (*Jour. A. M. A.*, Jan. 11, 1913, p. 134 and 144.)

COMMERCIAL DIGITALIS PREPARATIONS.—An investigation of commercial digitalis preparations has been made by Weiss in the chemical-pharmaceutical laboratory of the Ministry for the Interior, to whom is entrusted the control of proprietary medicines in Austria. From an investigation of ready-made tinctures of digitalis Weiss concludes that the apothecary should prepare his own tincture. Weiss is especially severe in his condemnation of the practice of making tinctures from fluid extracts. Among the commercial preparations which were deficient are found digitalone, digalen, liquid and tablets, tabloids of the tincture of digitalis (B. W. & Co.) and hypodermic tablets of digitalis (P. D. & Co.). Digi puratum, on the other hand, was found to have the strength claimed. Weiss concludes that at present the best form in which to prescribe digitalis is the freshly made infusion of physiologically tested leaves (*Jour. A. M. A.*, Jan. 11, 1913, p. 143).

VANADIUM PREPARATIONS REJECTED.—The Council on Pharmacy and Chemistry finds the following preparations of the Vanadium Chemical Company not eligible for inclusion with New and Nonofficial Remedies: Vanadiol, Vanadioseptol, Phospho-Vanadiol, Vanadium Solution for Intravenous and Hypodermic Use and Vanadoforme. After thorough investigation it was concluded that the company has not and never had any reliable evidence on which to base the therapeutic claims it has presented to the medical profession regarding its products. The findings of the Council were submitted to the Vanadium Chemical Company and its reply considered before publication of the report announcing the rejection was authorized. Vanadiol, according to the theory of the promoters, acts in the animal system as an oxygen-carrier. While the remarkable claims which were based on this theory are, to a large extent, capable of pharmacologic proof, no evidence to substantiate them was submitted by the company. The connection of the general manager of the Vanadium Chemical Company, "Dr." F. M. Turner,

with the Turner obesity cure is noted (*Jour. A. M. A.*, Jan. 18, 1913, p. 225).

VACCINE THERAPY.—When the first clinical reports on bacterial vaccine therapy were made in the United States, an attitude of skeptical pessimism was encountered in the medical profession. To-day a "positive phase" of optimism has carried a valuable therapeutic procedure to limits little short of ridiculous. Commercial expediency on the part of establishments marketing bacterial vaccines, and ignorance on the part of physicians generally as to the limitations of this branch of biologic therapy are to blame for this condition. Because of the uncertainty underlying the identity of the offending microbe in many infections, or because of the occasional mixed or secondary infections, combinations of bacterial vaccines theoretically justified by the "shotgun prescriptions" of other days are offered. Potent bacterial products producing toxic reactions of great severity, secret as to their exact composition and vaguely aimed at a mixed infection, are in the field, recommended to the medical profession through persuasive advertising literature or through the oral representations of detail men with no technical knowledge of immunology or practical experience in therapeutics. It follows that the use of these variously compounded bacterial derivatives is an unscientific confession of ignorance as to the specific cause of a given infection, and that the indiscriminate employment of these products must not only be ineffective but fraught with danger (*Jour. A. M. A.*, Jan. 25, 1913, p. 289).

COUTANT'S FRAUDULENT DEAFNESS CURE.—George E. Coutant, M.D., conducts a fraudulent "cure for deafness" concern. The business is conducted on the mail-order plan. Victims are obtained by means of a series of "personal" letters which offer the treatment at a sliding scale of prices. Examination of the remedies sent out, shows that these consisted of practically inert tablets given for their psychic effect, laxative tablets, tablets for gargling, a cheap douche and douche tablets, a worthless ointment and an inhaler containing a mustard oil preparation. Inquiry of the writers of testimonials for the "treatment" brought the acknowledgment in nearly all cases that the treatment had proven worthless (*Jour. A. M. A.*, Jan. 25, 1913, p. 303).

BOOK REVIEWS

A TREATISE ON PELLAGRA. By Edward Jenner Wood, S.B., M.D. Chairman of the Pellagra Commission. North Carolina Board of Health; Member of the American Society of Tropical Medicine; Fellow of the London Society of Tropical Medicine and Hygiene. With thirty-eight illustrations in text. D. Appleton and Company, New York and London.

The prevalent opinion among physicians generally that Pellagra is a rare disease and only of interest as a curiosity is entirely erroneous. There is no doubt that it is increasing in frequency in this country so that it behooves every physician to know a great deal more of the disease than merely its name. It is not given to every generation to see the appearance, on virgin soil, of a chronic disease and to watch it obtain a foothold, its existence be doubted and finally as it becomes prevalent to see it generally recognized.

Dr. Wood's observations and long experience both in this country and in Europe make him eminently fit to give to physicians the information they should possess on this most interesting and important disease.

The author's description of the history of the disease is particularly instructive. As Sambon says, the

United States is passing through the same phase in regard to Pellagra that Italy did at the close of the eighteenth century. All the theories of etiology are ably presented but it is recognized that no one of them satisfies all the known facts. The general characteristics of the disease are fully described and this is followed by special chapters on the Skin Manifestations, Digestive Disturbances, and Nervous and Mental Changes. In the chapter on Diagnosis particular stress is laid on the importance of a clear history in arriving at an opinion. The diagnosis does not rest on a specific test nor on a single symptom but on a series of symptoms, and it must so be until the cause is found. The author is very diffident, and with good reason, in his treatment of the subject of prophylaxis. The chapter deals principally with the various measures in vogue in Italy, these preventative measures being based on the so-called "corn theory" of the disease. Arsenic being the one drug which has stood the test of time in the treatment of Pellagra, the author devotes considerable space to a consideration of the effects of the different preparations of this drug, his final conclusions being that the best results are obtained when some form of this drug, which can be given hypodermically, is used.

The author's quotations from the writings of foreign and American workers are very free. This will undoubtedly occasion some criticism but it must be remembered that as long as we actually know so little about Pellagra we must at this period have the various opinions and views of the best workers in order to understand the little we do know of the disease. At this time no one can be dogmatic, and Dr. Wood's method of treating the subject certainly leaves us with open minds.

This book is the most complete work on Pellagra that has appeared in the English language.

THE PRINCIPLES OF HUMAN PHYSIOLOGY. By Ernest Henry Starling, M.D. (London), F.R.C.P., F.R.S., Jodrell Professor of Physiology in University College, London. Octavo, 1423 pages, with 564 illustrations, some in color. Cloth, \$5.00 net. Lea & Febiger, Philadelphia and New York, 1912.

A text book on physiology from the pen of so eminent an authority and investigator as Dr. Starling, is in its very existence an earnest of its worth.

The incentive for the task undertaken by the author seems to be a recognition of the many advances made in the basic sciences upon which physiology must needs be built, viz.: physics and chemistry. The human organism being subject, as it is, to so many normal physiologic variations, it becomes a necessity to correlate as many established facts as possible from the fixed sciences and therefore it behooves the physiologist to avail himself of every pertinent advance made in biologic physics and chemistry.

It will be readily agreed that the subjects of nutrition and metabolism alone are of such complexity and variability that whoever is unfamiliar with the workings of the normal human body must be lost in any attempt at rational therapy.

The book presupposes a primer knowledge of the subject of physiology, although Book 1 consists of a review of the subject in a general way. Book 2 is a consideration of the mechanisms of movement and sensation and embraces chapters upon the contractile tissues, nerve fibers, the central nervous system, and the physiology of sensation. In Book 3 under mechanisms of nutrition the author includes chapters upon general metabolism, the physiology of digestion, history decidedly interesting reading.

of the food-stuffs, the blood, physiology of the circulation, lymph and tissue fluids, the defense of the organism against infection, respiration, renal excretion, the skin and skin glands, body temperature and its regulation, and the ductless glands. The last fifty or more pages are taken up by Book 4 in a consideration of the physiology of reproduction.

The author, realizing the breadth of his subject, has borrowed freely from the masters in the various branches of the science of physiology and has incorporated only the best and more recent data in each.

The work is indeed one of the most satisfactory texts upon the subject of physiology now in print.

A TREATISE ON DISEASE OF THE HAIR. By George Thomas Jackson, M.D., Professor of Dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University; and Charles Wood McMurtry, M.D., Instructor in Dermatology in the College of Physicians and Surgeons, Medical Department of Columbia University, New York. Octavo, 366 pages, with 109 engravings and ten colored plates. Cloth \$3.75 net. Lea & Febiger, Philadelphia and New York, 1912.

We are all cognizant of the fact that the average physician knows little enough of the diseases of the scalp and hair, and it is for this reason that the public is sufficiently credulous to intrust the care of these parts to the barber, the hair-dresser and the charlatan.

The authors of this volume have combined in a comparatively short space all the essential facts pertaining to the subject and have drawn freely upon the works of those who have made it their life study. The book opens with some general considerations of the anatomy, physiology and hygiene of the hair, to be followed by a section on the essential diseases of the hair; then come in order, considerations of the inflammatory diseases of the hair follicles, parasitic diseases of the hair and diseases of the hair secondary to the diseases of the skin.

Particular attention has been paid throughout to the subjects of diagnosis and treatment, and each has been wrought out in as simple and effective way as possible. The illustrations are most excellent, as are the type and paper, and all told, the work is well worth space on the shelves of every general practitioner.

THE WASSERMANN TEST. ITS TECHNIC AND PRACTICAL APPLICATION IN THE DIAGNOSIS OF SYPHILIS. By John W. Marchildon, B.S., M.D. Assistant Professor of Bacteriology, Saint Louis University Medical School. Eleven illustrations and colored frontispiece. Cloth. Pages, 103. Price, \$1.50. Published by C. V. Mosby Co., St. Louis, 1912.

To any one at all interested in the laboratory diagnosis of syphilis, this little book can not help proving both interesting and useful. It is a matter of some satisfaction to note the loyalty of the author to the regular Wassermann test in preference to the various modifications of Noguchi and others. The numerous non-syphilitic conditions in which positive Wassermanns had been reported, are enumerated, with a brief review on each. In his apparently extensive experience the author has found fewer limitations to the accuracy of the test than have been reported by many other workers. The book is not only valuable for the technical knowledge contained in it, but also proves to be

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VOLUME VI

FORT WAYNE, IND., MARCH 15, 1913

NUMBER 3

ORIGINAL ARTICLES

THE RELATION OF THE DEFECTIVE HEART MUSCLE TO VALVULAR SYMPTOMS *

S. E. EARP, M.S., M.D.
INDIANAPOLIS

A defective myocardium may be entirely responsible for the symptoms we at times ascribe to an error of a valve. An effort is made to remedy a defective cardiac muscle by furnishing it aid to enable it to perform its duty. If it be overworked the first manifestation may be dilatation, then thickened walls, while pressure increases and other cavities dilate. We always bear in mind the results of sclerosis which are many and the effect of fatty tissue on the nutrition and functional capacity of the heart. Good heart muscle means good compensation, while failure generally means a defective mechanism in other cavities and possibly is more likely to be pathologic than functional.

Quite frequently we hear a systolic murmur over the precordium which may be due to a combination of causes such as anemia, relative mitral insufficiency or the myocardium may be the prime factor even when there is no organic lesion. Sometimes a slight dilatation or a systolic murmur may appear at the apex when for some reason there is extra work thrown on the heart muscle.

Greene, in *The Journal of the American Medical Association*, Aug. 31, 1912, calls attention to the necessity of a change in the general attitude of medical men with relation to the valuation of subjective symptoms and the determination of the symptomatic relationships of the lesser cardiac dilatations. A large group of chronically

diseased individuals known as neurasthenics may be free from organic heart disease, but are lacking in heart-muscle tonus and possess extremely dilatable symptom-producing hearts as a part of their fundamental and usually congenital defects in general bodily structure and function. He says further: The term "perfect compensation" in heart disease is a misnomer, and the pathologic events in such cases make it evident that there is a constant more or less gradual but progressive limitation of the field of cardiac response, and periods must inevitably occur from time to time, long before the onset of emergent or gross symptoms, when appropriate therapeutic measures will support and aid the embarrassed and laboring heart, relieve suffering and prolong life. To make the symptoms of extreme cardiac exhaustion one's only justification for active therapy is both illogical and dangerous. The recent studies of the causative agents and portals of infection in acute rheumatism, a better knowledge of the nature and means of detection of syphilitic infection and the introduction of new agencies and better methods for the intensive treatment of lues make both the avoidance and permanent cure of these conditions easier and indicate the possibility of greatly limiting the large group of myocardial and aortic lesions of which they are the causative factors.

Concerning the possibility of a break in compensation or an insidious insufficiency, Barker calls attention to the fact that the mitral ring may dilate and give rise to a relative mitral insufficiency associated with cyanosis and dyspnea, and still later as the tricuspid dilates a relative tricuspid insufficiency, then there may be eventually general anasarca; consequently the conclusion that the compensating factors in valvular disease of the heart are in the main muscular factors, and failing compensation means a failing cardiac muscle. It is a knowledge of the

* Read before the Indiana State Medical Association, Oct. 11, 1912.

functional possibilities of the muscular power of the heart that must necessarily be given the greatest importance. Relative murmurs are very frequently diagnosed other than such, and the autopsy only reveals the facts.

Often there has been a neglected pericarditis. The predisposing cause only may be present, and treatment of a cardiac lesion may perhaps be only prophylactic, yet it is all important, and to this too little consideration is given. Even a heart lesion in its incipency very frequently escapes attention and only the grosser manifestations must exist to attract our notice when the cusp of a valve shows a defect.

Furthermore, in endocarditis nearly every instance there has been an element of myocarditis preceding it. Whether the cause of a mitral murmur be directly attributable to rheumatism or otherwise, the heart muscle first shows the effect of the toxin, particularly if we have present one of the acute infectious diseases. A pathologic process of myocardium very often indeed prevents coaptation of the valves, and hence a murmur is heard on auscultation. It should not necessarily be an exaggerated one in order to be detected. Moreover a valve may do defective work and still not be a diseased valve; that is to say, only indirectly because the myocardium is the causative factor and behind this perhaps the disease of which it is a complication. Hence this implies that remedial measures are serviceable by treating the primary disease, for instance rheumatism, and secondarily such agents as will better the condition of the myocardium. I have known patients with endocarditis to live many years. I call to mind one patient who had a well-marked mitral regurgitation for forty years, but compensation was good. It is very common, I believe, to diagnose a diseased mitral valve when the heart muscle is at fault. I fear we are now and then a little careless in our physical exploration of the chest. To hear a mitral murmur and let it pass at that is not enough; the size of the heart, the position, character of the pulse, blood-pressure and other things concerning the heart and the blood-vessels should be known. Too little consideration is given a murmur which is often relative. This condition is one for treatment. The cause is a remote one, perhaps, and what has been said heretofore concerning early treatment, early diagnosis or an "anticipating diagnosis" will be applicable. This is not in any sense far-fetched; do we not use the antitetanic serum when a wound hints a predisposition to tetanus? A sore throat sometimes calls for diphtheria antitoxin. Perhaps these are not perfect parallels, but they are significant. Hence, where there are

conditions which favor endocarditis, treat these conditions and remove the predisposition.

It is surprising how many patients get well by giving due consideration to exercise, rest, diet and drugs. Many of these perhaps are myocardial and possibly many more should be recognized before they are so advanced that palliation is the only treatment. A damaged heart muscle or any of its parts may not be made new, but with care it is not unusual for the heart muscle to be benefited, so that it becomes competent to meet all the demands made on it.

On the other hand, functional and relative heart conditions are more serious than some credit them. Not a few have been surprised when death followed a diagnosis of relative or functional heart murmur; some of our bookmakers have had this experience. It is true, however, that a mitral murmur frequently does not signify a diseased valve, and we must look to the myocardium. While engaged in clinical teaching before a section of the senior class of Indiana University School of Medicine it was my good fortune during the past few months to unite forces with Professor Alburger, professor of pathology in the same school, and to study forty-six autopsies. The subjects came from various institutions, some were surgical, others medical. The record charts showed that 50 per cent. of the patients had had a mitral regurgitation, and yet in one case only was there any evidence to this effect presented by inspection of the valves, but in a large majority there was a pathologic heart muscle. This observation still further convinced me that a damaged heart muscle is very frequently the potent factor either directly or indirectly.

We can conceive after a consideration of the mechanism of the heart, its blood-supply and all that pertains to it, including its anatomy and physiology, how a pathologic lesion of the heart muscle can in some instances affect any of its component parts. Perhaps influenza is one of the diseases predisposing to a pathologic heart. Not infrequently it comes unawares, on account of our inattention to case detail. Possibly muscular intoxication, or nervous paresis, or at any rate an infection is responsible. It is very true that influenza, as is the case with a few other diseases, has the faculty of rendering active a latent tuberculosis or heart lesion; but of the influenzal heart itself mention may be appropriately made. Allbutt contrasts influenzal cardiac poisoning with that of diphtheria, but it is more baffling in the former. He surmises that the derangement is not so much from a defect of muscle as the nervous endowment. No explana-

tion is positively given for the altered heart chambers or what the cause may be of the oftentimes grave dilatation. In speaking of myocarditis, he shows that it is likely first to be a heart muscle, then valve, not in words, but the reader with such tendencies of belief might regard it as an implication. For instance, he says every attempt to wean the patient from rest, to set him on his feet, aggravates the disorder; the rhythm of the heart, disturbed as it is, gets worse, and the quick, irregular, undulatory and diffuse impulse of dilatation becomes more aggravated, with a variable systolic murmur and, subjectively, with palpitation and more vague distress.

I fully appreciate that the soft murmur of acute fevers may be functional and not recognized as such, since it is not always an easy matter to determine the differential point as to whether the sound is in the locality of the aortic or mitral area, the latter indicating endocarditis. It is true that the accentuation of the pulmonary second sound and the character of the pulse and impulse of the heart might seem certain aid in the identification of an insufficiency, and yet unless great caution is observed there is opportunity for error in diagnosis and prognosis. Whatever improvement we expect we do not fail to keep the heart muscle in mind, for it is here we find the danger line.

Most text-books say endocarditis is characterized by the formation of small vegetations on the segments, opposed to the blood current, near the margin of the valve, forming a row of bead-like growths; then the absence of these shown at an autopsy would lead one to suppose that, even with the presence during life of a well-established murmur, the case was not one of endocarditis; provided, however, that a blood examination was made to find the infecting organism plus the usual microscopical technic. If we eliminate the importance of the heart muscle and use the above as an infallible guide it might require an autopsy to determine the correctness of a diagnosis. This description of a valve's condition in endocarditis we do not doubt, but we are particularly interested in the class of cases showing all the symptoms of endocarditis when an autopsy gives negative evidence. This only brings up the statement of a famous clinician that an abnormal heart before death may not after death present lesions to sanction the fact.

Walsh, in *The International Clinics*, Vol. III, 21 series, 1911, calls our attention to the fact that a loud murmur is usually a sign of a strong, vigorous heart muscle, and so long as the heart muscle remains healthy the prognosis is good. Often the disappearance of murmurs is much

more serious than their loudness. With this in view a consideration of mitral stenosis should be given. In quoting Gerhard, he rather emphasizes that the heart muscle ranks first in importance. When his students hesitated in treatment or prognosis, he said: "Is the apex beat displaced? If it is not, then there is no lesion in that heart that is serious at the present moment, and there is nothing for which you are quite justified in giving heart remedies. There may be murmurs, there may be irregularities, there may be impurities of heart sounds, but unless the heart is dilated, it is doing its work well."

In the first instance, as our experience and that of some others leads us to believe conclusively, when the valve is deformed, if the heart muscle is good, there is a great degree of safety; while if myocardium and valve both show a defect, the prognosis should of course be guarded; in the second instance, the language is strong, and yet it evidences the important rôle played by a good heart muscle.

I am impressed with the author's repeated assertion that it is more important to know what sort of a patient has a heart lesion than what sort of a lesion the patient has. This is not by any means claimed as new doctrine. It simply suggests the influence over the mind of the patient whereby there is often a decided improvement, but there has not been sufficient time to elapse for the drug agent to act. The heart muscle and pulse and even the general condition of the patient shows a betterment.

It is evident that a pathologic heart muscle may be largely responsible for a functionally disordered valve and sometimes a permanent disability. A sound heart muscle may atone for the defect of a part by compensation. An infectious agent may affect any portion of the cardiovascular system with an intensity toward myocardium and valves. This condition may be transitory or continuous, and the outcome mainly depends on the influence of it and other governing factors on the myocardium.

In a paper before the Indianapolis Medical Society, January, 1911, I called attention to the removal of the tonsils to prevent infection, and Dr. W. S. Tomlin gave some space to what I had said in an article which he published in the *Indianapolis Medical Journal*, March, 1911, concerning an operation for the removal of the tonsils. Infection is very frequently largely responsible for cardiac defects whether they be immediate or remote. We especially recognize the possibility of such a condition when we call to mind the views recently promulgated by Simon Flexner (Hamilton Lecture on Infection and

Recovery from Infection, published by the Smithsonian Institution, May 29, 1912). He says: "Infection is an active process, quite different from the mere presence on a surface of the body of the parasite capable of causing disease. We carry constantly on our skin and mucous membranes a whole host of potentially infectious bacteria, which for the most part do no harm whatever, and possibly, indeed, through preoccupation of the soil, ward off at times more definitely and highly injurious parasites. And yet they are capable of malign activities. The whole large and important group of pus-producing bacteria are our constant guests, as are quite a number of other species including the germ that causes pneumonia."

Thus we are obliged to conclude that the surfaces of the body exposed to constant bacterial action possess a high degree in susceptibility to ordinary infections. This state, about which there can be no question is spoken of as local immunity. It depends, moreover, on definite factors, some of a relatively coarse kind that operate only as long as they may be intact, and fail to operate adequately where imperfect. The opening of the "portals of entry," as they are called, of bacteria into the body follows on the breaking down of this system of external defensive mechanism. Thus the mucous membrane of the nasal and buccal cavities, especially about the masses of lymphatic tissue called the tonsils, which are imperfectly provided with a complete epithelial investment, particularly in the young, constitutes the gateway into the body of the infectious agents.

I need not discuss the damage which results from an infectious agent on the heart, nor the frequency with which it occurs. Not a few times have I examined case records in hospitals showing valve symptoms and at the autopsy table there was no evidence of a defective valve, but there was a diseased myocardium, which in some instances was presumably the result of an infectious agent. I was very much impressed with what Dr. Edward C. Rosenow, of Chicago (*Medical Record*, April 27, 1912), said relative to malignant endocarditis. After reviewing his studies relative to the heart, he showed a firm belief in an infectious agent as a cause and as a means of prevention, said, when a patient came to him with cardiac trouble, he always advised total removal of the tonsils, as a prophylactic measure. I have reached a point in which there is an avenue for saying much without an end in view and perhaps I had better close abruptly by asking that too much attention be not given a

valve symptom without a careful study of the cardiovascular system and all things concerning it.

DISCUSSION

DR. LOUIS F. ROSS, Richmond: I think this is a very important paper, and that it is quite worth while to have our attention directed to the subject. My only criticism of the paper at all would be that the author does not go far enough when he insists on constant heart muscle rather than valvular loss. It seems to me the outcome of the heart cases depends on the heart muscle and not on the sort of loss. If you have a leaking valve it means that the heart must pump enough extra blood through that valve every time to make up for what it loses. If it does, then you say the heart is compensated, and if the heart compensates, the patient is just as well off as if there was no loss; but the point is that if later on he has pneumonia or something of that kind, the heart is not then able to take care of the extra work, and he is not so well off as if he had never had a heart loss. So, instead of saying that we should not overlook the importance of the muscle, I think we may say that it is the only thing of importance. If a man has a big valve loss, an attack of rheumatism makes the outlook for his heart muscle worse than if he has a small loss. But finally the thing that decides whether a man can keep going or not is whether the muscle can take care of the extra work, so the difficulty really lies with the muscle. It seems to me the most common mistake is the use of the stethoscope in taking the patient's heart sounds. You can hear a noise, but it seems to me that is of less importance than to find out under how much difficulty his heart is doing the work it is doing. It is very important to know whether a man breathes comfortable when he is sitting down, and whether there is active dyspnea when his breath-rate is increased; whether when he gets up to walk he has to breathe more rapidly; whether he can go upstairs without an attack of dyspnea, and whether when he is half-way upstairs he is very weak in his knees and feels he cannot go the rest of the way; whether when he walks he has a pain in his chest or a sense of restriction—because all of these things to a greater or less degree show whether his heart muscle is able to attend to its business. It is also important to know whether a man has had rheumatism, but it is just as important to know whether he has had typhoid fever or a bad case of pneumonia, either of which might account for the weakness of the heart muscle and be responsible for the trouble. We spend too much of our time making examinations which too often lead us astray.

I think the removal of the tonsils to prevent chronic infection is also a very important thing. The whole point is that if the tonsils are infected so they show constant absorption of pus, they should be taken out. I do not think the size

makes any difference, but if we have pus any place in the body where it is shut up, it cannot help but do damage in various ways.

DR. JOHN A. MACDONALD, Indianapolis: The title of Dr. Earp's paper is a very significant one. It is a little difficult to keep close to his subject in a discussion, for the reason that when we begin to think about heart disease there is no end to the number of phases of this disease which we wish to take up.

Dr. Earp has struck the keynote of the most important phase of this subject, namely, the matter of infection. We all see many cases in which we feel we may date an endocarditis from a tonsillar or pharyngeal infection, and it is a very familiar picture in my mind just now, as is also the marked disturbance of a heart suffering with chronic myocarditis perhaps hitherto not important to the patient himself, when this individual suffers from a septic process any place in the body. I have very recently seen a patient in whom the sudden increase of myocardial disturbance was very difficult to understand, until with the presence of fever it was found that he was suffering from an abscess at the root of a tooth.

The history of the study and understanding of heart disease reminds one of the history of the average child, who in steady progression finds the relation existing between the different organs of his body, and is delighted. Just so through several medical generations we have found new things about the heart. Years ago when the heart was first found to be subject to vegetative endocarditis, and these lesions were found at post-mortem, the medical profession was wont to explain the cardiac insufficiencies on mechanical principles due to primary valvular changes. Later, with the appreciation of the mechanical embarrassment due to adhesive pericarditis, a new problem was presented and apparently joyfully solved, until with an appreciation of the importance of infectious myocarditis we began to recognize many of these cases as a true pancarditis, and this view has found its permanent place in the rational cardiac therapeutics.

For a long period after the development of the stethoscope and the consequent belief that we could accurately interpret most of the cardiac murmurs, the appearance or absence of such murmurs was made the basis of treatment, until with an understanding that the most desirable state of cardiac compensation may be affected by the slightest bruit, a tendency came to ignore entirely cardiac auscultation, and I believe that the pendulum has swung too far in this matter, since the proper study of the condition of the myocardium demands not only recognition of the individual's general vascular condition, but a study of the muscular sounds of the heart by the stethoscope.

In consideration of our patient presenting the compensated phase of heart disease, we must recognize that this individual is not entirely recovered, and compensation is not purely a periodic process, but to some degree must be continuous, protecting the individual who is not able to do all things at the same level as if he had never suffered from heart disease. He must be taught that while he is in a condition of safety at present, he must live at a somewhat lower level in all things, and that his safety depends to a large extent on his instructions in living by his physician, making it wise that he present himself for periodical examinations and that he be protected in so far as possible from all infectious processes, such as Dr. Earp has described. This is particularly true of the young, since we must believe that myocardial infection may be transmitted through the endocardium at the site of vegetative or ulcerative lesions as well as through the bloodstream, and it is important that these points of chronic infection, namely, the tonsil, the appendix, the gall-bladder and the prostate gland, receive more particular care in these individuals than in those who are cardiovascularly normal.

DR. G. W. McCASKEY, Fort Wayne: I would like very briefly to emphasize a few points developed by the paper. For years I have been emphasizing the relatively great importance of the myocardium in comparison with other heart diseases.

We must not ignore the valves. It depends, it seems to me, in the first place on the cause, the nature of the valvular lesion. Supposing the valvular lesion is the result of acute infection from which the patient completely recovered. We may assume that that valvular lesion, other things being equal, will not progress. If that is true, and if it may happen that ten per cent. of the blood is regurgitating back through the imperfect closure of that valve, that patient may go on to old age without a single symptom to indicate that there is anything wrong with the valves of his heart. It is a different proposition, however, when these valve defects occur in the second half of life, and we may assume they are the result of a degenerating process. We may fairly assume that the tendency will be for the valve defect to increase. Nevertheless, until it does reach a certain point, the myocardium still remains the most important thing.

I simply want to say that the general practitioner owes it to every case of infection, acute or chronic, to safeguard the myocardium from the chronic results of the changes which occur from acute infection. No individual passes through acute infection of any sort without more or less serious involvement of the myocardium. Many a life is lost because the general practitioner fails to safeguard his patient through that trying period.

DR. WM. S. TOMLIN, Indianapolis: I would like to say just a word on this paper, to empha-

size some features of it that appeal to me especially. The rôle of toxins in the production of this myocarditis. The myocardium is the real point of significance in murmurs. The acute infections do play some part, of course, in myocarditis, but in my limited personal observation I have not been inclined to pay so much attention to the effect of the acute infections as to the results that are left by them. Take a case of tonsillitis; it is not the infection of the tonsil that is so important, it is the condition remaining and the constant absorption that takes place there. A working man may spend all the hours of the day working in a sewer, yet if an individual sleeps an hour in the same place, he is a sick man. Why? Because most of our toxic absorptions take place in our sleeping hours. Wherever we have foci, as we have in the tonsil crypts, there we have absorption that is most productive of degenerative changes in the muscular tissue of the body, and of the heart especially.

DR. EARP (closing): I am reminded by what Dr. McCaskey said about safeguarding the pericardium that that would take a paper by itself.

The myocardium that is not protected, that is beginning to degenerate, if no attention is given to it, eventually what may be a mitral insufficiency, not organic, will become organic by neglecting the myocardium. Furthermore, the relationship naturally shows that, compensation established, the myocardium performs its duty, and, as we might say, a man goes to a pump with inferior valves and gets a gallon of water, and that is all he wants; another man goes to a new pump and gets a gallon of water, and that is all he wants, and one is just as good as the other because he gets his gallon of water; but there is a time coming when these valves will lose out, and every additional break of compensation means danger. Therefore Dr. McCaskey's words—safeguard the myocardium and prevent the second, third or fourth cause of breaks in compensation.

I am thankful to those who have spoken on this subject. I have studied it until I have become enthusiastic. I hope it will awaken us and remind us of some things we knew before.

THE DEFECTIVE SCHOOL CHILD *

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"Every child has the inalienable right to be born free from disease, free from deformity and with pure blood. Every child has the inalienable right to be loved; to have its individuality re-

spected; to be trained wisely in mind, body and soul; to be protected from disease and from evil persons; and to have a fair chance in life. In a word to be born right and be brought up in the fear and admonition of God," is the way our beloved Dr. Hurty has so ably put the question of the moment.

The object of this paper is to call the medical profession's attention to its responsibility. If the child is to be born free from disease, free from deformity and with pure blood there must be a great educational campaign inaugurated. The future parents must be educated in eugenics. The laws of heredity must be given to them in such a way that they will know what they are. To eradicate syphilis, marriage must not be undertaken until sufficient time has elapsed and the cure is known to be complete and the physician must say when that time comes.

Those with inherited deformities, epilepsy and insanity, and the feeble-minded, the confirmed criminals and alcoholics should never be given in marriage, unless it be with one of their kind, and then only after the sterilization of both. Segregation and sterilization of these will mercifully lessen their number instead of having them increase at the present alarming rate. Such an educational propaganda must of necessity be led by those who know—the physicians.

If the child is to be trained wisely in mind, body and soul; to be protected from disease and from evil persons, and to have a fair chance in life, the physicians must awaken to the needs of this moment and formulate plans for the work.

A study of the physical defects found among school children will give some idea of the extent of the work to be done.

The physical examination of the pupils in the Valparaiso public school in 1911-1912 was made by three physicians, each examining about the same number of pupils.

The principal defects and diseased conditions found in the pupils of the grades were as follows:

| | |
|---|-----|
| Number of pupils examined..... | 609 |
| Percentage with hypertrophied tonsils .. | 64 |
| Percentage with enlarged cervical glands .. | 48 |
| Percentage with defect of vision..... | 23 |
| Percentage with defect of breathing..... | 15 |
| Percentage with adenoids | 10 |
| Percentage with defect of hearing .. | 6 |
| Percentage with anemia | 5 |
| Percentage with discharging ear | 1 |
| Percentage with goiter | 12 |

In a study of the condition of children's teeth, made by seven dentists, the examinations including all the pupils in the Valparaiso public schools, it was found that 88 per cent. of them had diseased teeth. That 175 first permanent molars had been extracted and that 1,400 were diseased.

* Read before the Indiana State Medical Association, Indianapolis Session, 1912.

If this same condition prevails over the entire state, there is in Indiana:

497,849 children with enlarged tonsils,
 373,387 with enlarged cervical glands,
 178,914 needing eye glasses,
 77,788 with adenoids,
 116,683 other nasal obstructions,
 46,673 with defective hearing,
 7,778 with discharging ears,
 93,346 with goiter,
 684,542 with diseased teeth,
 136,900 first molars have been extracted,
 1,088,500 first molars are diseased.

We have not completed our study of the mental conditions but if Goddard's¹ findings should prevail in this state we have in our schools to-day 31,115 precocious children, 116,683 backward or mental defectives, and 23,336 feeble-minded. This does not take into account 329,895² children in the state under school age.

Why such a large number of uncared for cases? Have the physicians been negligent? Have they been ignorant of the prevailing conditions and not cared to become interested? Or is it because the profession is too busy? If this be the cause it would seem that there is a need for more physicians to care for the children. There are in Indiana 777,889³ children of school age. Allowing 1,000 children per physician this would demand 754 physicians. Then we are in need of a physician for every 2,000 school children, or 377 to engage in health supervision work in the schools, and these workers should be under a health commissioner in each county who should be devoting all his time to that work and adequately compensated. The call and need in Indiana therefore is for over 1,300 new physicians, or the changing of the kind of work by a large number of physicians who are already here.

This new work is largely educational. Our school authorities and our teachers are eager and willing to help. The teachers' examination questions usually contain some questions relative to health. A recent list asked "What is apoplexy?" "What is paralysis?" I thought a better question would have been "How is diphtheria spread?" "How is typhoid fever spread?" "How do you ventilate a school room when the room relative humidity is 30 and temperature 80?"

The result of the recent attitude of the medical profession and the medical and public press, relative to Fourth of July noise makers, shows how

the press and the public can be interested in an educational campaign. An editorial in the Sept. 7, 1912, number of *The Journal of the American Medical Association* says:

"Bright innocent children, instead of being tortured, mutilated, blinded and burned to death as in former years, were this year preserved for their families and the world, save in a few instances. Instead of 5,623 persons injured, the number reported by *The Journal* in 1908, there were only 988; and instead of 466 killed, including 406 who were subjected to the agonizing tortures of lockjaw, as reported in *The Journal* in 1903, there were only 41 killed, including 6 tetanus victims. Instead of having a continuous struggle of from twenty-four to seventy-two hours against disastrous fires caused by the discharge of fireworks, this year the fire companies of our large cities, with a few exceptions, were practically idle. The forcing into bankruptcy of a few large fireworks factories in the last two or three years has been more than offset by the enormously increased sale of flags, bunting, banners and decorations."

The records show that some headway has been made in Indiana, in the education of the people about typhoid fever, yet not a single county was free from the disease last year. In ten years the death-rate per 100,000 was decreased from 48.3 to 26.9. How long would it take the State Board of Health to clean up the state of typhoid fever if all the physicians in the state would take one hour for each family he cares for, and make a sanitary survey of the premises and tell the family what they should do to be safe from the disease? You say that the city water-supply in the cities is responsible for much of the trouble, and that would not correct the bad water-supply. If the people knew as much about the source of typhoid as they should, how long do you think it would take a city council to make the necessary provision for a safe water-supply, and plans for adequate sewerage disposal. Are the physicians making the necessary effort to locate the typhoid carriers? How many chronic sufferers in Indiana are typhoid carriers? Do you tell your families that typhoid is contracted from the ingestion of sewerage and in no other way? With our present knowledge typhoid fever in Indiana should be considered a disgrace.

The death-rate from diphtheria has not been materially reduced in ten years and will not be reduced much until we learn to culture all sore throats, and by this find out all cases and, the more dangerous, carriers. Who is it that makes

1. Goddard, H. H.: Two Thousand Normal Children Measured by the Binet Measuring Scale of Intelligence, *Pedagog. Sem.*, xviii, pp. 232-259. Four per cent. gifted, 78 per cent. normal, 15 per cent. defective, 3 per cent. feeble-minded.

2. U. S. Gen. Bull., Ind. Pop., 1910.

3. Census Bull., Ind. Pop., 1910.

the public so rebellious to quarantine regulation when dangerous infections are found in a person? I think it is usually the physicians. The sheriff will be given much praise and often a very liberal reward for the capturing of a murderer or even a burglar. The physician who captures a disease carrier usually gets a "cussing," and at times a "licking." Why? Is it because the people do not understand? Or is the reason found in the conduct of some of the physicians of the community? The kind that when Tommy has been placed under quarantine as a diphtheria carrier, tells his father that usually diphtheria makes them sick, and reminds him of the time when Nell had that awful sore throat he did not quarantine them, or conducts himself in some such manner familiar to most of you, by his word or action he attempts to depreciate the professional opinion, or the line of treatment of the attending physician. It is this class of "quacks" within our profession that has brought our noble profession much unjust criticism. A story is told about a man meeting a health officer one day and asked him why he was not maintaining a better quarantine observance by his neighbors who had diphtheria. The health officer replied that the doctor who had the cases was not very good in diagnosis and in his opinion the cases were not diphtheria. Ten days after the physician sent a culture to the State Board of Health to see if the case was ready for release. The report was that the swab cultures contained the diphtheria bacillus. The public should be educated in the modern methods that they may protect themselves against the careless or ignorant practitioner and when it understands it will be the first to demand the isolation of a suspected spreader of infection the same as they now demand the detention of the suspected criminal.

What are we doing in the way of giving plain instructions to our tuberculosis patients? Do we impress on them the need for the strictest precautions regarding the disposal of the sputum and other discharges? Do we impress on them that this is necessary for the protection of themselves, as well as a protection to their friends? Do we instruct the public to shun the careless consumptive as they would a small-pox patient? Up in Porter County a farmer set his hired man at work spraying the potato vines with Paris Green. When the servant had finished the task he had not used all the poison, and wanting to clean the bucket took it to the edge of the field and emptied it along the fence which separated the field from the public highway. A cow belonging to a neighbor was grazing in the highway and when she saw a

green tuft of grass inside the fence would reach her head through and mow it down. She came upon the grass on which the servant had emptied the poison and devoured enough of the Paris Green to cause her death. The farmer whose servant had been careless was obliged to pay the owner of the cow the value of the same. Do we tell our consumptive patient that the distribution of tuberculosis laden sputum on his own premises, on the street, or on a neighbor's property is as true a poison as the Paris Green? That the law prohibits spitting because of the poison contained therein? That this poison makes people sick and kills as surely as does Paris Green? When will the laws be interpreted so that the person who is responsible for the distribution of infection will be held responsible to the persons who are poisoned by it? We must study how to stop the exchange of human discharges and when the exchange ceases will not infections cease, except those transmitted through the bites of animals, as malaria, typhus, the plague, etc.?

The physician should not content himself with an examination and a prescription of some medicine. He must look into the food-supply, glance in and see the sleeping-chambers, look at the cellar, the well, the privy, the garden, the barnyard and other things that may need his attention.

The correction of all the physical and mental defects at this time is impossible. Are we joining with the social and educational workers and doing as much as we should? The responsibility of the future generation is very largely in your hands, at least with those parents who are beginning the raising of their families. See to it that as many defects are avoided as possible and correct them as fast as they develop. This will carry you more firmly into the hearts and lives of these people, and the profession will begin to get the respect and the confidence it should have, and the new fads and the new thought movements will not pull your patients from you. If the children are not kept vaccinated against disease as fast as vaccines establish their place, whose fault is it? Are we keeping our families vaccinated against small-pox? When one of our patients contemplates a trip or voyage, do we vaccinate him against typhoid?

Why are 88 per cent. of the children allowed to have an average of more than four diseased teeth? Are we teaching the parents that the temporary teeth demand the same attention that the permanent teeth do? That no child can properly be protected against infection with these portals of infection open? That this is the most probable

port of entrance of the tuberculosis bacillus in children? That diseased teeth are a very frequent source of gastro-intestinal, glandular and mal-nutritional conditions? That they render the person unable to properly masticate, and that the constant swallowing of germ-laden secretions is not desirable? That clean teeth do not decay? That temporary teeth are properly lost by the absorption of the roots and not by decay of the crowns?

It might be advisable for the physician to organize certain groups of patients into classes and meet them in his home or office and instruct them. By doing so I am sure the physician will learn more than the patients. A class of expectant mothers can well be instructed in the care of themselves, and those with children need much more instruction. Then as the children approach adolescence get the parents in and post them in sex hygiene that they may instruct the children in the right way. Some of these parents will request you to instruct their children in this subject. Instruction should be given in personal and public hygiene and sanitation. It may be advisable that a lecture course be arranged and the groups desired invited. The lecturers may be local physicians or others. Assist the school teachers and plan with them in presenting the subjects to the children. It will take three generations of education to put into universal practice the knowledge we have to-day. Interest the churches in applied Christianity; your lodges in applied fraternalism. Too many physicians have been living off of what the people can give instead of letting the people live off of what the doctors can give, is the way a prominent educator put it. If the medical profession does not bring to the community the lesson of practical prevention, as given it by the digging of the Panama Canal, and does not care for the sick and mental defectives in a more satisfactory manner the people may do as England has done, and in the doing the American physician may be left out of the consideration as the English physician was in the Lloyd-George Bill.

Ample health supervision of school children, efficient public health officers, a loyalty to these workers by the general medical profession, national sick and accident insurance, old age pensions, maternity assistance with an annuity for those needing the same during the family raising period where it is shown that the parents and offspring are free from chronic infection and hereditary diseases and defects, are some questions that the medical profession should take an active part in shaping.

ARTIFICIAL INFANT-FEEDING WITH SPECIAL REFERENCE TO STOOL EXAMINATION *

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If one looks back over his case histories he will be able to put each case into one of two classes: The normal feeders and the difficult ones. It is not my purpose to take up the details of either class, but to lay before you, in a cursory manner, a system evolved from the chaos of what has been written in the last few years.

Some three or four years ago practically all American physicians were using the percentage system of Rotch and Holt. In this part of the country, at least, there was only one authority on the subject—Holt. He was guided in the changes of his formula by the weight of the infant, its general behavior and the stools; good guides we must admit when properly interpreted. Whenever colic occurred, or curds appeared in the stools, the proteid was supposed to be to blame. We now know this was a mistake. In those days the cream was increased whenever constipation occurred, while at this time it is not uncommon for us to cure constipation by reducing the fat.

Jacobi says that he advocated low fat percentages fifty years ago and that he has many babies come to him every year whose nutrition is suffering from an excess of riches.

Chapin used a cereal water in his modifications; Wright advocated citrate of soda, and lime water has been quite generally accepted as a necessity by all. The object of these modifications is to make a fine curd in the stomach. As a matter of fact, they are all unnecessary and are of no practical value for this purpose in normal infants, because the stomach of the infant in health is in motion when food enters it and the curd is necessarily small.

About three or four years ago the German feeding methods began to find favor in this country, and the calorimetric system, or the feeding according to weight, was adopted by American pediatricists. The caloric system feeds the baby so many calories of food per kilogram of weight. The food is usually made of whole milk diluted with water, with the addition of sugar to the amount of six or seven per cent.

There can be no doubt of the soundness of this principle of feeding a baby according to its

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weight, within certain limits, and I believe that nearly all who have given this matter much serious thought use the calorimetric system, at least for the purpose of checking up their formulas.

We perhaps will agree that all normal infants under six months of age should receive from 100 to 120 calories of food per kilogram of body weight. We will also agree that they should have fats, proteids and carbohydrates in certain proportions if they are to maintain a proper balance of nutrition. But the all important point to determine is the proportion of ingredients in the food mixture. That is the difficult thing to decide, and it is just here that one's individuality comes in. Unless your formula is properly proportioned it is a failure. Since we have only so many calories per pound of body weight, we must apportion the amount of fat, proteid and carbohydrate in each so that the infant can best use it.

Under ordinary conditions, 6 or 7 per cent. of sugar in the formula is the amount agreed on by all as the best. At times it becomes necessary to keep the fats or proteids, or both, low, and then the sugars may be temporarily used in larger amounts so as to maintain the total caloric value of the food as near normal as possible.

In this connection, however, it must not be forgotten that sugars are responsible for many of our cases of diarrhea and especially in hot weather.

Finklestein and Meyer claim that there is no proteid indigestion. Wahls, of Chicago, supported this view and said that he had fed infants on skim-milk and gotten nothing but smooth salve-like stools. More recently, Talbott has taken up the question of proteid digestion, and he has proven quite conclusively, both by analysis and by biologic experiment, that there is a curd which is due to the feeding of an excess of milk. This curd is the tough bean-like curd, which is light or yellowish in color, but its chief characteristic is that it is tough because it is composed largely of casein.

The origin of this curd is in the stomach where it is formed from the proteid of the milk, involving in its meshes more or less fat, depending on the percentage of fat present. It fails to be dissolved in the intestines, and passes through little changed. When these curds appear in the stool they are often preceded by colic. They may cause the stool to be mushy or liquid, to have a foul odor, and to contain mucus, and when they persist and occur in large numbers, they produce a diarrhea by their continued irritation.

The chief thing to be learned from curds is that the baby is getting more proteid than it can digest, and it consequently should be reduced. Or, as Brenneman suggests, they can be made to

disappear from the stool by boiling the milk. This, he says, is the reason why Finklestein made the claim that there is no proteid indigestion, because in Germany it is customary to boil the milk, and with boiled milk proteid curds never appear.

Following Brenneman's suggestion I have often made these curds disappear from the stool by boiling the milk, but I am doubtful as to the advisability of doing this. Is it right to feed an infant as much boiled milk as would cause curds if fed raw? Perhaps it would help one in deciding this question to know Howland's conclusion from a metabolism experiment in which he fed babies more or less proteid. I shall not go into the reasoning of this experiment, but he concludes that an infant should receive only about 10 per cent. of the caloric value of its food in proteid. This, under ordinary conditions, would amount to little more than an ounce of milk to the pound of body weight in twenty-four hours. If the baby's proteid digestion is good it will not show tough curds in the stool until more than one ounce of milk to the pound is fed. Allen, of Chicago, has also done some experimental work along this line and he concludes that an infant gets its full proteid requirements when fed one to one and a half ounces of milk per pound. In my experience it is seldom necessary to exceed this amount—one and one-half ounces to the pound of body weight—and one should approach this figure cautiously.

Next let us consider the fat which is the most troublesome element of all to deal with. Contrary to the beliefs of several years ago, it is the element of an infant's food on which hinges most of our successes and most of our failures. The proteid curdles in the stomach, enmeshing the fat as it does so, and as this curd is dissolved the fat is set free gradually. If the curd is too rich in fat, the stomach becomes irritated and the infant spits up, repeating the spitting as more of the fat is set free. That is why an infant continues to spit up for an hour or two after a feeding when the irritation is caused by the fat. After leaving the stomach and being passed into the small intestine, the fat is changed into fatty acids and soaps and is absorbed in the system, or else it is passed in the stool either as unchanged neutral fat, as fatty acids, or as soaps.

Morse divides the fatty stools into three types: The one with fat curds, the soap stool and the neutral fat stool. The fat curd is easily recognized as a small soft curd, which is white in color. The soap stool is the normal stool of the infant when it is of a yellow color, and is smooth and of a pasty consistency. But when it becomes hard

and dry and crumbly, and is light in color, or even clay-like, it is the soap stool of indigestion.

The neutral fat stool contains an excess of fat in the form of neutral fat. It is usually yellowish in color and is thin in consistency. This is the typical stool of fat diarrhea, which fortunately is a comparatively rare condition as it is difficult to deal with.

Talbott has contributed a very valuable addition to our knowledge along these lines in his microscopic examination of the stools. As mentioned previously, the fats in the stools are of three forms: Neutral fat, fatty acids and soaps. He stains these fats by adding to a small portion of the stool a drop of Sudan III, which stains the neutral fat and fatty acids red. This leaves the soaps unstained, but the addition of a drop of acetic acid and heat changes the soaps to fatty acid, so that the entire fat content of the stool will now stain and can be approximately estimated by examination under the microscope. Using a No. 3 eye piece and No. 7 objective, he concludes that more than eight fat drops with Sudan III, and more than twelve with acetic acid and heat, is an excess of fat. This, without symptoms of indigestion, warns one to watch the fats more carefully and, with symptoms of indigestion, points to the cause of the trouble. And further, when practically the whole slide turns into fat drops, leaving very little fecal matter unchanged, it is best to reduce the amount of fat in the food even if there are no symptoms.

I have been examining stools according to Talbott's method for more than a year, and can concur in his statement that it is a very valuable check on the gross inspection, and occasionally yields surprising results. I am of the opinion, however, that he attaches too much importance to the more moderate amounts of fat in the stool.

This method is especially valuable in those cases in which the infant is passing considerable amounts of neutral fat and yet the stool is yellowish, but not liquid. This infant may be put on swim-milk and it will still pass an excess of neutral fat for a time. One can judge of the progress of such a case by the microscopic examination only. And only by this method will he know when and how much to increase the fat. Furthermore, it can be determined more exactly by this method than by any other, whether or not an infant is handling his fats well, and very often excessive amounts in the stool will be detected before symptoms arise. Also, when symptoms are present and the gross examination of the stool is not conclusive, the microscope may be depended on as far as the fats are concerned. It must not be forgotten, however, that a certain amount of

fat is always found in the stool, and it is only excessive amounts that are pathologic.

Following the suggestion of the Germans, some have advocated the use of whole milk in their modifications. They have made out that feeding can be brought down to the simple matter of diluting whole milk one-fourth, one-third, one-half and so on with the addition of sugar. My experience with that kind of feeding has not been satisfactory. There are cases that require it and still others that cannot take as much cream as is in whole milk, but as a rule the young infants do best on top milk.

You cannot use whole milk and adopt Howland's suggestion that "only 10 per cent. of the caloric value should be proteid." If you feed the usual amount of sugar and barley water, it becomes necessary to use one and one-half ounces or more of milk per pound of body weight in order to give the required calories. So, in feeding whole milk dilutions, you must either give a higher proteid than seems desirable, or a higher sugar than is customary. These conclusions are borne out by Ladd, of Boston, who quotes series of cases to show that the infant gains more rapidly when fed 3 or more per cent. of fat.

There is another element in the food which causes considerable trouble in my experience, both in the infant and the older child, that is the starch. Many are fed on barley water dilutions from the beginning, and, by common consent, some cereal water should be added to the food by about the sixth month, and at the end of the first year considerable more.

It is important to know how well these starches are being digested, and this is determined by staining the stool with Lugol's solution and examining under the microscope. This stains the starches blue. Any starch in the stool means that either the quality does not suit the child or that the quantity is in excess. I find starch in the stool frequently in the second year and beyond that time, and am convinced that it is our greatest source of trouble, from a digestive standpoint, after the first year. The subjects of starchy indigestion are peevish, often have a slight temperature, have a pot belly and pains in the abdomen. Not infrequently small patches of a dry scaly eczema may be found on the body, especially on the face.

My rules in beginning starchy foods with infants are about as follows: 1. Never feed starches, except as cereal water, before the age of one year. 2. Cereals must be cooked at least three hours on a fire. Only after the three hours are they allowed in the fireless cooker. 3. They are given in very

small amounts at first and very gradually increased.

Probably the best form for the first few months of the second year is the oat-meal jelly, and later the whole cereal may be fed, using at first a finely divided one such as Cream of Wheat. Crackers and toast are reserved for the time when the above-mentioned cereals are proven to be digested, as shown by the stool examination.

The typical stool of starchy indigestion is sour and has a sickening odor like sour meal or bran. They are mushy or liquid, usually two or three a day, and contain a moderate amount of mucus. They are brownish in color, unless changed by a considerable amount of other food. Of course, the deciding point is the examination under the microscope with Lugol's solution.

Such cases occur in my practice relatively frequently, most often in the infant who is just beginning other food than milk, but not rarely in the child two to four years of age. Infants, who pass starch in the stool persistently, will sooner or later have symptoms of indigestion as a result. I admit that there are healthy infants, who seem to digest all known foods at the age of nine months, but you and I, all of us, have seen healthy infants become the subjects of indigestion a few months hence as a result of indiscreet feeding.

SUMMARY AND CONCLUSIONS

1. The caloric value of an infant's food should be calculated in every case and used as check to be sure that we are neither overfeeding, nor underfeeding our cases.

2. Sugars must necessarily compose about 6 or 7 per cent. of the food.

3. Tough bean curds mean an excess of proteid. They disappear if the milk is boiled.

4. Only about 10 per cent. of the caloric value of the food should be supplied in the proteid, which amount is little more than one ounce to the pound of body weight.

5. The young infant should not be fed on whole milk mixtures ordinarily. When he is so fed, the one ounce per pound rule should be remembered, and the caloric value made up in sugar.

6. It is impossible to feed infants intelligently unless the gross examination of the stool is made. To this the microscopic examination with Sudan III is a valuable aid and will help materially in keeping check on the infant's fat digestion. In some difficult cases it is more important than the gross examination.

7. Feed no starches, except cereal water, until the age of one year. Then feed carefully and be governed almost entirely by microscopic examination with Lugol's solution.

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DISCUSSION ON PAPERS OF DRs. NESBIT AND TORIAN

DR. L. PARK DRAYER, Fort Wayne: Of the first paper I only have to say that the medical inspection of schools in Fort Wayne, which has been going on for the past two years, and which has only accomplished a small part of the results to be expected of it, has been a wonderful benefit to the youngsters in the schools. But the work is only beginning, and the time is not far distant when we feel that the results will be more than even the most sanguine could have expected.

Of the second paper there is so much written that is startling in connection with artificial feeding of infants, that one is perplexed, unless he has singled out a certain plan, studied it, learned its idiosyncrasies and its intricacies, and followed it out for a period of time.

Rotch and Holt introduced almost simultaneously the percentage system of feeding infants, when everything was chaotic, and that system was used to more or less advantage for years. Then along comes Jacobi and talks about the worth of top milk feeding, and knocks the whole thing into a cocked hat. Then came our German friends with the calorimetric system of feeding, and it is an ideal method. Then we read in italics in one of our pediatric journals that such-and-such a man is feeding babies from birth on undiluted, whole cow's milk, and is not having any trouble. Then comes the Keller plan, and the Kavosch (?) method, and a great many others, to say nothing of the commercial preparations.

Now, Dr. Torian's paper comes to us with a message that should not be overlooked. It is the secret of infant feeding, it matters not what plan you follow. We have mighty little indigestion in so far as a baby's stomach is concerned; but we do have indigestion so far as the baby's intestinal tract is concerned. Let the stomach alone, in the absence of congenital malformation or defects, and you will rarely see a case of gastric indigestion in the infant. And here we have a paper which tells us just exactly what we want to know. Are we feeding this baby too much proteids? it will appear in the stool as a thickened curd. Are we feeding it too much fat? it will appear as fatty acid. Are we feeding too much starch? the Lugol tells you immediately. And in ten minutes' time with this simple procedure you can make the test. It is ideal, and it does not make any difference what you are feeding the baby, it tells you. It is a check.

I am perfectly ready to enthusiastically endorse the doctor's method of feeding top milk, especially after two or three months. I want to endorse his suggestion of the caloric check. How many sit down and figure out—here is a baby that weighs so many pounds; how many ounces of food am I giving it? To a baby three months old, 40 calories per pound of weight; 21 calories per ounce of undiluted milk. It is a problem of mathe-

matics—but we do not do it. We say, put a little Mellins in the milk, or try a little Horlicks; and if that does not do, try something else. We are up against this proposition every day in feeding infants, and the trouble is that if we find we have a bad feeding baby we let it go before we will ask anybody that does know, until the baby has an atrophied digestive tract and a case of almost hopeless intestinal malnutrition.

DR. W. D. HOSKINS, Indianapolis: I wish to commend the paper as one of value. It shows that the workers in diseases of children are in mind and harmony with the general movements of scientific and experimental medicine, and it brings to the general practitioner many suggestions that he can apply—even if he has not the accessories of the specialist—in his every-day work. The paper was based, naturally, on the average feeding of normal infants. It is difficult sometimes to follow the suggestions and the deductions and the inferences that are thrown out, and apply them to the difficult cases, and just here I think it is important to distinguish, in discussing a paper of this kind, between the normal feeding case and the difficult feeding case. The distinction is vital, if we are not to misinterpret a paper such as we have heard.

The importance of a study of the stools in considering the digestion of the infant ought not to require any plea or apology, it is so plainly evident, and yet when you stop to think, there is in a general way very little known about it. We have known for generations that in disorders of digestion there were green stools, and curds in the stools, and beyond this there is frequently very little definite knowledge on the part of many physicians, and particularly of the laity. But they can, each of them, be taught. The intelligent physician will give a little detailed attention to it, a few hours study; and the intelligent mother can also be taught to recognize deviations from the normal and interpret them accurately and place the blame where it belongs. This, of course, implies that we are to study milk, not as a whole, but as a component part of the different elements, fats, sugars and proteids.

I take it that it is not advisable here in a section of general medicine, to discuss in detail the various methods of feeding. These belong rather to the specialist. Dr. Torian certainly has eminent authority for his adherence to top-milk feeding. In the first place, it is one with which most of us are familiar. But I have been surprised, and sometimes chagrined, to find that eventually the students going out would tell me that they did not comprehend what we were driving at—did not feel at all competent to compound accurately formulas based on relative percentages of various elements of the food. If that is true of young men going out of school, after two or three years of teaching along this line, I am not surprised that the whole matter is one of confusion on the

part of the men who have been out longer and who have had little opportunity to follow these methods.

We have equally many authorities for the feeding of low fat mixtures, skim milk mixtures, buttermilk mixtures and all of these. It is a matter in which we take our choice and work out our own salvation in our individual practice. Personally, I may say that for two or three years past I have used as the basis of my mixtures a modification of whole milk rather than top milk, although I was born and raised on the high fat and top milk method. But in my own practice I have found that I have succeeded equally well, and in many of the difficult cases of feeding better, by the use of the low fat mixtures, such as more easily found in the ratio found in whole milk.

DR. JAMES H. TAYLOR, Indianapolis: Relative to the first paper, within the past year I had a chance to write a paper on eugenics, and in looking up the subject I found it was exceedingly difficult to cover even a part of it, and therefore I would say in passing that the doctor has made a special point, so far as the future generations are concerned, that we should reach conclusions through the process of eugenics.

I concur in what he has said about examination of the teeth, adenoids, etc. There is one point in addition that I think is exceedingly important, and that is that there are certain children, as he intimated, who are months or years behind others of the same age. I say these children ought not to be put in school just because they are six, or because they are seven, even if they have to be ten years of age before they are sent to school. It ought to be noted by the physician whether the physical condition of that particular individual is sufficient to withstand the duties of the child in the schoolroom at that age.

In regard to infant feeding, Dr. Drayer intimated that there were certain physicians—or that was my inference—who got familiar with a certain plan, after trying it time and time again, and adhered to it. I used to follow the top milk feeding exclusively. By and by I took the whole milk, and in a series of babies find that 80 per cent. will take cow's milk diluted, or at least those with which I have had to do will take the milk when it is adjusted to them, and I consider the whole condition of things in the full twenty-four hours. Under this, if the baby sleeps well and eats well and retains its food, if its stools are regular and of the proper consistency and color and show no evidences of indigestion, and it gains in weight, then I know I have the food adjusted to that infant, and the chief point I try to bear in mind is that this child shall not be overfed. It takes the stomach two or three hours to empty itself of mother's milk, and it takes longer to empty itself of cow's milk, it being more difficult to digest. So I make the intervals

of feeding for a child of eight weeks, three hours, and five or six months, four hours, and if the child gains in weight I let that formula which has been adjusted alone.

Now, there is another percentage of cases—and it is a very small one—but I had a number of these cases this summer, perhaps twelve or fourteen. I had associated with me an expert who examined the stools, and we were very successful in some of them; but there comes along another class—and I can illustrate in this way: You can take a poor cook in the kitchen, and you can send her in the best flour, the best soda, the best cream tartar, the best of all the ingredients that go into a cake—and yet she will spoil it. You can send the best brick to the top of a building, and the best mortar, and the mason with his trowel will spoil the whole thing. And so with the digestive functions.

GENERAL DISCUSSION

DR. HOMER WOOLERY, Bloomington: I am pleased with both of these papers. I do not believe I can add anything to the paper of Dr. Torian, because I agree in every detail. The point he actually made is to be scientific in our work. It pays. This thing of having a child come in with a little indigestion and giving it malted milk, or Horlicks, or something of that kind, is ridiculous. That is the reason we have so much indigestion and lose so many. If you will be scientific, study these cases, you will know where the trouble is and can remedy it. Be scientific in everything you do, and then you are not to blame. A cook may spoil a cake if he does not prepare it according to formula, and there is where we need the nurse in these cases.

But I want to talk to you about defective children. We have been having medical inspection in our schools for four years. We have not gone as far as we would like to go, nor as far as we expect to go, but the prospects are very bright.

The paper did not speak about the orthogenic department. We have this department by virtue of having the assistance of able men in connection with the university. Dr. Jones takes much of that side of it. We recommend the correction of all physical defects, and of course thereby reap great benefits. But, on the other hand, we find many children who show psychological defects, and those we bring over to the orthogenic school, and very many cases are helped there. Cases that cannot go ahead and keep pace with the normal child, if we bring them over to this school and work along educational lines and eliminate their special trouble, we soon get them back to the class where they belong. We hope to develop more and more special workers and send them out over the state.

We must consider the defects of these children and work the educational system accordingly. They are following this method at Bloomington;

their assistants are doing this work for us, and of course we are accomplishing a great deal of good.

Then there is another point—the use of the trained nurse to send out to the homes to show these mothers how to take care of their children and avoid illness. That we hope soon to have at Bloomington. One thing that has impressed me at Bloomington is the number of poorly nourished children—a rural community like Bloomington. In a city it would not be so surprising to see a large number of poorly nourished children, but it is in a rural community like Bloomington. We see so many poorly nourished children who have fallen behind because they cannot keep up the pace.

DR. G. W. McCASKEY, Fort Wayne: It has been very nearly a quarter of a century since I had an obstetrical case or saw very many children, and naturally I would not be expected to discuss a paper on infant feeding. I would like in passing to express my admiration of the work of the pediatricians. I know of no department that has improved so much as the department on pediatrics. I would like to take off my hat to them and sit at their feet, if I had the time.

But I want to speak more particularly on the first paper. Every sentence of it was crammed full of thought, and it ought to be a great benefit to everyone of us. What I want to do is in a general way to add such emphasis as I can to the importance of taking the child, as the father of the future men and women, and making most of him. It is there we must begin. If we are ever, for instance, to eradicate infectious disease or overcome tuberculosis, it must begin in the schoolroom with the child. It was emphasized yesterday by various speakers that the child is especially vulnerable to tubercular infection. It is especially vulnerable to many infections, and we must protect the children. We can eliminate many defects without a doubt, but never until we begin with the school children. Not only in the school, but in the home—here is the field for social workers. Reference has frequently been made to defective children. What are the defective children? Some children are born with defects, others have them forced on them. The last speaker mentioned the poorly nourished children. There are defects that are brought on the child through no fault of its own, and so I believe that a large percentage of the so-called defects of children could be prevented by proper surveillance of the child from the cradle onward, in the school as well as the home. Whenever we as medical men are willing to go a little outside of our special work we can do much to help in this, but we must get out of our own narrow road into the broad field of eugenics. We must be the leaders in this great movement which is to so greatly benefit future generations. We must look not alone at to-day, or to-morrow, we must look three generations ahead.

A MEMBER: I would like to ask the essayist in closing to tell us what if any objection there is to boiling pasteurized milk.

DR. NESBIT (closing): I do not know that I have anything to add. One point that I had hoped you might read between the lines was this—that it is time we were taking advantage of all of our organizations, our schools, our state institution, every recognized force we have in the state, and converting them into laboratories for the study of man. We are neglecting this in that we are allowing our bright men, our good workers to be pulled out of this work and going into commercial laboratories. They are paying the price and getting the men. Public interest must be created in these matters—that it is this question of laboratory work that counts.

I have emphasized the defects this morning, but I do not want you to dwell on these too much. Indiana is a grand state, and we have a lot of bright children. Do not show the dark side too much.

DR. TORIAN (closing): There were two points in my paper that I would like to emphasize. One which I dwelt on a good deal was the amount of starchy indigestion which we have in these cases of children, especially those who have gone beyond the age of one year. That point was not discussed particularly, but I do wish to emphasize it. I do feel that there are many children in the second, third or fourth year who are having starchy indigestion. I find them often, and I find the starch under the microscope. Cases which are running a little fever and which may be taken to be cases of tuberculosis if they are not gone into thoroughly. A child may show the Von Pirquet reaction and not have tuberculosis. He may be suffering from starchy indigestion, and unless the stool is examined that cannot be determined.

I do not wish anyone to think for a moment that I do not use whole milk dilution at times. I do not believe I advocated any particular system of feeding. I did not advocate the percentage system entirely, nor the calorimetric system entirely. I believe that if a man tries to adopt one system entirely, if he does not use a combination of the whole thing, that he is going far wrong. I do not believe you can be as successful with either one of these systems as you can with a combination of all that has been taught us about them. It is no doubt a fact that the child that is fed on whole milk according to the calorimetric system in a great many cases will not gain, but you have to break away from rules to get success, and I do so and state with great emphasis that it is not a proper method to feed all children the whole milk dilution according to the German method of feeding. The Germans may feed their babies that way, and they may gain; but Indianapolis babies do not gain by it as well as on the top milk mixture. There are many cases that require top milk mixture because they cannot

stand any more fat than is in the top milk mixture; but these cases can be brought gradually, most of them, to a higher percentage of fat, and when they are you will find they will gain more rapidly and more steadily than without.

Dr. House asked what objection I had to boiling pasteurized milk. I simply want to say I have no objection whatever to the pasteurization: as to sterilization, I am doubtful as to whether it is a wise proceeding to boil the milk to get rid of the curds. We do not know all there is to be known about infant feeding, about the chemical reaction that takes place in the body of the infant, and we must therefore leave that as a question which is at present undecided.

A CASE OF TUBERCULAR ULCERATION OF THE ILEUM AND CECUM

IN WHICH THERE WAS NO REACTION TO INJECTIONS OF TUBERCULIN AND WHICH WAS COMPLICATED BY APPENDICITIS, THE TIP OF THE APPENDIX OPENING INTO THE ILEUM AND THE BASE OF THE APPENDIX SHUT OFF FROM THE CECUM

MILES F. PORTER, A.M., M.D.,

Surgeon to Hope Hospital; Professor of Surgery in the Indiana University School of Medicine

FORT WAYNE, IND.

Mrs. J. B., widow, 28 years, housewife, Montpelier, Ohio, referred by Dr. Bechtol, admitted to Hope Hospital, October 31, 1912.

FAMILY HISTORY

Mother has had sciatic rheumatism for the past four years; paternal grandmother, one uncle and one cousin died with tuberculosis; also one maternal uncle. She has two brothers and one sister, the latter coughs and is very thin.

PERSONAL HISTORY

Measles, uncomplicated, at thirteen; menses came at twelve, always regular until last March, since when she has had two scant periods; the last about the middle of August. She has given birth to three children, the youngest three years in December. Has not been well since birth of last child, is gradually losing strength and weight. Had an attack of indigestion two years ago last summer and a severe cough last winter. Last March had an attack of pain in the epigastrium which later localized itself in McBurney's region with tumor formation; since then has only been free from abdominal distress two weeks. She does not vomit, is constipated and has dry cough; appetite good; food does not distress her, but she belches a great deal after meals. For the past several weeks has had intermittent pain under the ribs behind, more marked on the left side; has to get up twice at night to urinate. Patient

is not confined to bed, but has to lie down a great deal.

EXAMINATION

Pale, emaciated brunette, brown eyes. Diminished resonance over the middle lobe of the right lung, prolonged expiration in both apices and at right base posteriorly; tubular breathing over the right middle lobe anteriorly. Heart negative. Slight tenderness over both kidneys and marked tenderness over the lower half of abdomen. Slight retroversion of the uterus which is freely movable. A distinct mass can be felt in the right pelvis rather high; this mass seems round and long to the finger in the vagina, but it cannot be felt with the hand on the abdomen. Owing to the extreme tenderness bimanual examination is not satisfactory. Temperature 99, pulse 116, respiration 26, blood and urine normal. No reaction to 5 and 10 mg. injections of Old Tuberculin given at four-day intervals. A provisional diagnosis of appendicitis with involvement of the right appendages was made and an operation advised. Operation November 9, 1912.

OPERATION

Incision through inner side of right rectus from umbilicus to symphysis. The omentum was found covering, and adherent to, a mass which extended from the middle of the right pelvic cavity half way up to the liver. On uncovering this mass it was found to be composed of the cecum and a part of the ascending colon and a part of the ileum bound together by adhesions. This mass was also adhered to the posterior aspect of the right broad ligament and to the parietal peritoneum of the right side of the pelvis and right side of the lower abdomen. Several ligatures were required on the adhesions and several stitches were necessary to stop the bleeding at a point where the mass was freed from the parietal peritoneum at the brim of the pelvis. It was noted that the center of this adhesion seemed to be breaking down as though it were formed to protect a perforation of the bowel or appendix, but no cavity existed on the parietal side and at the time of the operation no opening which seemed to lead into the bowel or appendix was found. About two ounces of serum was found free in the pelvic cavity. After freeing the mass a search was made for the appendix, but it was not found. Inasmuch as the distal end of the ileum, the cecum, and the lower end of the ascending colon, which together formed the mass, seemed hopelessly diseased, it was decided to make a resection. This was done and a side-to-side anastomosis made by suture. The wound was closed without drainage. No pus was seen.

DESCRIPTION OF SPECIMEN

Although the large bowel was divided close to the hepatic flexure, yet, owing to pathologic changes, that portion removed measured only 5½ inches, while the portion of ileum removed measured 6½ inches. The coats of the large bowel

were very much thickened, firm and unpliant. The ileum was normal save in spots where the coats were thickened. In splitting open the gut through the ileocecal valve these spots in the ileum were found to be due to isolated ulcers, six in number, all located opposite the mesenteric attachment, and none of them extending through the muscularis. The whole of the mucous surface of the large bowel, save the upper inch or more which is normal, is occupied with a large ulcer, except for three islands of apparently normal mucous membrane (Fig. 1). This ulcer also seems to go no deeper than the mucosa. These islands are situated at the attachment of the mesocolon, and the upper one is continuous with

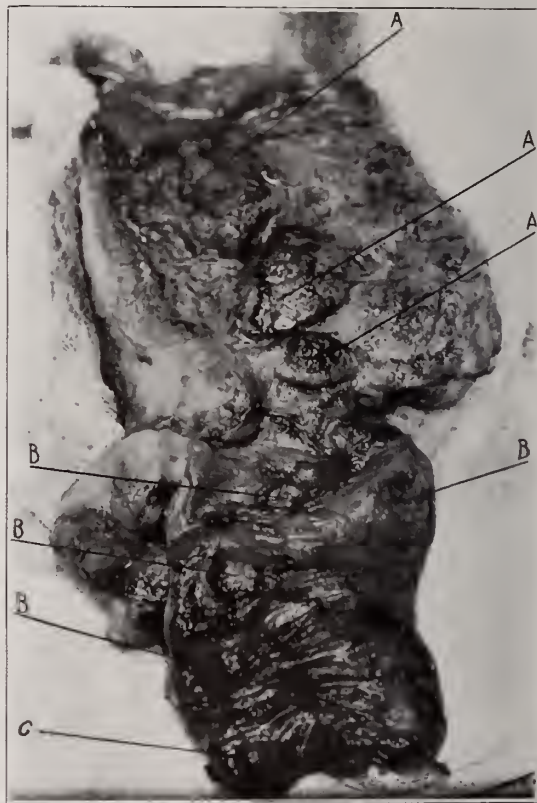


Fig. 1.—Photograph of specimen showing whole mucous surface of cecum ulcerated except at three places (AAA), also four of the ulcers in the ileum (BBB) and the opening of the appendix into the ileum (C).

healthy bowel above. At the lower end of the cecum was, what seemed at first, a closed cavity, spherical in shape, lined apparently by normal mucous membrane, and filled with about two drams of clear mucus and a few bubbles of gas. No communication can be found between this cavity and the cecum, but on careful examination a minute opening was found at the lower end, which on examination, was found to lead into a sinus lined with mucous membrane and which led to a small opening into the ileum just distal to the divided end of the ileum. The cavity was separated from the cecum by a line of dense

white tissue which is well shown in the photograph (Fig. 2). The opening into the ileum is also well shown in the same photograph. From end to end this sinus measures about two inches. About the middle of the sinus is a small opening communicating with a cavity of about two c.c. capacity, which cavity in turn has another small ragged opening which marks the site of a dense adhesion that bound this part of the specimen to the parietal peritoneum at the brim of the pelvis. This cavity was filled with broken down tissue,

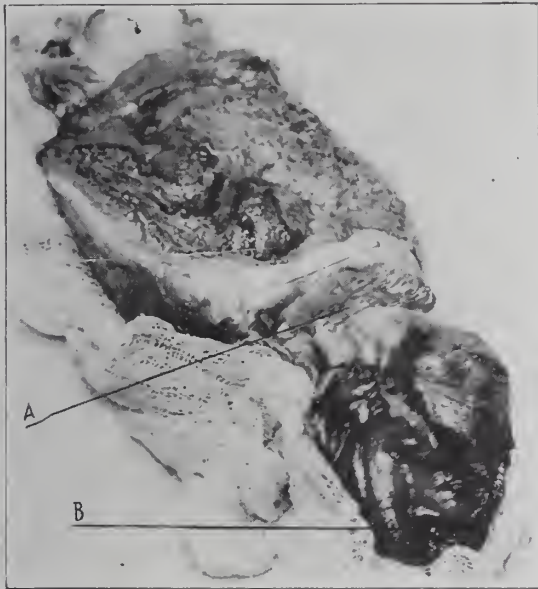


Fig. 2.—Photograph of portion of cecum and ileum, showing pin lying on partition shutting off appendix cavity below (a) from cecum above. The opening of the appendix into the ileum is marked by the head of a pin at b.

but contained no pus recognizable with the unaided eye. A reference to the accompanying illustrations will serve, I trust, to make the above description plain. The sketch (Fig. 3) was made because a photograph could not be taken so as to show all the points of interest in one view. To make a sketch that would do this it was necessary to make it somewhat schematic.

Figure 3. Sketch, partially schematic, of specimen after removal. The bowel was split open opposite the mesenteric attachment through ileocecal valve. At A is shown the cut edges of the bowel; note that the coats of the large bowel are much thickened, while those of the small gut are not.

At B are shown areas of normal mucosa, the two lower appearing as islands in a large ulcerated area shown stippled at C and the upper continuous with healthy mucosa and bowel above. At D are shown the ulcers in the ileum, E ileocecal valve. At F is shown the cavity at the end of the cecum from which it was completely shut off by a thick fibrous partition shown at G. This

cavity, F, opens below into a sinus H. This sinus which was found to be lined with mucous membrane, connects the cavity F with the ileum at I. Between the commencement of the sinus in the cavity F and the end in the ileum I, there is an opening opposite the end of the line H, which opening leads into a cavity of two c.c. capacity at J, which cavity contained a little broken-down tissue, but no pus, and has another opening into it at K. This opening marks the site of a dense adhesion which bound this point to the parietal peritoneum at the brim of the pelvis. In the sketch the cavity appears without an outer wall; as a matter of fact this cavity was only discovered after the outer layer of the mesentery was divided in following up the sinus H, leading from the lower end of the mucous-lined cavity F.

REMARKS

In my opinion the cavity F was formed by an obliterating appendicitis, which shut off the lumen of the appendix from the bowel. Later, perhaps, the cavity J was formed by a perforation of the appendix. Finally this cavity and the appendix were possibly drained and the trouble

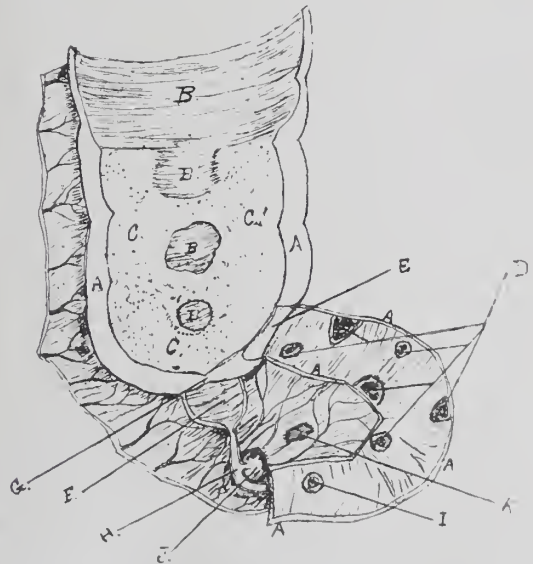


Fig. 3.—Sketch, partially schematic, of specimen after removal.

more or less definitely cured through the perforation of the tip into the ileum. To my mind there is no reason for believing that the appendicitis and the ulceration of the bowel were related save by mere coincidence. The pathologist's report shows the trouble to be tubercular beyond question, and yet two test injections, one of 5 mg. and one of 10 mg., were given four days apart with absolutely no reaction from either.

Note.—Patient was discharged from the hospital 21 days after the operation, feeling well and eating heartily.

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EDITORIALS

THE WORK OF THE LEGISLATURE

At this writing the work of the 1913 session of the Indiana state legislature is closed and a review of it so far as it pertains to the medical profession is in order.

An important bill that was passed and signed by the Governor and is now a law, is the one which relates to the sale of habit-forming drugs. Briefly stated, its provisions are, that it shall be unlawful for any person, except a registered pharmacist, to retail, sell or give away any habit-forming drugs, or any preparation or compound containing them or their derivatives, except on the written prescription of a duly registered physician, licensed veterinarian or licensed dentist, but even they are not permitted to give directly or indirectly any prescription for such drugs to be used by any habitual user of habit-forming drugs. Every prescription must contain the name and address of the person for whom prescribed, and the date when such prescription was filled must be kept on file by the druggist or firm that fills the prescription, and the same shall be open to inspection to any and all officers of the law, and once each month a report of all sales must be made to the Indiana state board of pharmacy. Provision is made for the legitimate sale of habit-forming drugs by the wholesaler, jobber or manufacturer. Patent medicines or proprietary preparations containing not more than two grains of opium, or one-fourth of a grain of its alkaloidal salts, or their derivatives to the ounce, or Dover's Powders, or any preparations labeled "For external use only," are exempt. The law further states that nothing in the act shall be construed to prevent the legitimate administering of habit-forming drugs (which are enumerated) by a duly registered practicing physician, duly licensed veterinarian or duly licensed dentist. Fines and imprisonment are provided for violation of the act.

County medical societies should give special attention to the fact that it shall be the duty of

the prosecuting attorney of the county where such offense is committed to prosecute all persons violating the provisions of the act, on proper complaint being made, and on failure of such prosecuting attorney to act it shall be the duty of the attorney-general of the state of Indiana to prosecute any person violating the provisions of the act. It is also the duty of the Indiana state board of pharmacy to enforce the provisions of the act and to adopt such rules and regulations as deemed best to carry out the provisions of the law.

The committee on legislation and public policy of the Indiana State Medical Association supported this act in its amended form, but urged that its administration should be placed in the hands of the State Board of Health, because this board has auxiliary bodies and local executive officers in every county in the state and possesses the only official machinery for the really effective administration of the law. The State Pharmaceutical Association prepared the bill and the State Board of Pharmacy introduced it and urged its passage in its original form without amendments, including some most obnoxious provisions, of them being one which legalized the use of "the antispasmodic mixtures of the National Formulary official at the time of sale," and also included "lotions." Of the antispasmodic mixtures of the National Formulary acknowledged official, are several which contain from 16 to 18 grains of opium to the fluid ounce, and these, with "lotions," of cocain containing any amount, could have been sold in watery solution if simply labeled for external use only. The original bill was a retail druggists' measure pure and simple, and strictly construed would have prevented physicians from leaving a half-dozen doses of morphia when called to see a patient in the country, and would have necessitated sending a written prescription to the nearest drug store which perhaps might be miles away. These provisions were wisely stricken out and the legislature would have done wisely also if it had placed the administration of this law, as it was urged to do, in the hands of the State Board of Health where its enforcement could have been successfully accomplished. The State Board of Pharmacy and the newspapers are already deploring the fact that inadequate funds are provided for the administration of this law. If the State Board of Pharmacy exercises the proper degree of executive capacity, and if the county medical societies will cooperate with it, the law ought to be a success, and if they fail, in two years from now the administration ought to be placed where

it belongs, in the hands of the Indiana State Board of Health.

The Chiropractice bill was defeated in the Senate, where it originated, and it is inconceivable that its passage should have been for a time seriously contemplated by a majority of the members of the upper House of the Indiana Legislature. Osteopathy has signally failed under the provisions of the present law to which its representatives reluctantly agreed, and which simply requires them to accept the same standard required of other applicants for license. In the past four years there have been but four osteopaths who have been able to meet the requirements in the state of Indiana. As a result, the "Chiropractors" and the "Spinologists" and other such cults are now doing the same thing which the osteopaths did eight years ago, viz., applying for a special state board in the hope of getting a compromise which will permit them to have a representative on the present state board, and by getting enough of these new fangled cults on the state board to obtain a majority and at once to attempt to lower the standard established and maintained by the State Board of Medical Registration and Examination. Opposition to advancing the standard has already been attempted by Spaunhurst, the osteopathic representative on the present board, but has failed. Three or four new "ologies" given a representative on the present state board would secure a majority by which the schedule of minimum requirements could be immediately lowered and the whole law practically nullified. It is to be hoped that every county medical society and every representative physician in Indiana will keep these facts in mind and use his influence with future representatives and senators to oppose such demoralization of the medical educational standard in Indiana. During the recent fight the osteopaths on the surface claimed to be opposed to the Chiropractice bill, but this deceived no one except themselves and a few members of the Senate.

The Thornton bill has passed both houses of the Legislature and has been signed by the Governor. The bill provides that whenever 5 per cent. of the citizens of a city petition the State Board of Health setting forth in the petition that the water furnished by the water company of such city is not of standard purity and wholesomeness, the State Board of Health shall investigate, and if it is found that the water company is not furnishing a supply of water of standard purity and wholesomeness the State Board shall order the water company to put in a filtration

plant or to do whatever may be necessary in order to insure a supply of pure and wholesome water.

The "rat bill" has passed the Legislature. It declares rat-infested property to be a nuisance and provides for the extermination and destruction of rats, authorizing the State Board of Health and local boards of health to prosecute the work of destruction and extermination, and provides for the observance of a rat day.

The "housing bill" passed by the Legislature and signed by the Governor provides for the proper construction, alteration and maintenance of tenement houses throughout the state, and provides penalties for violation of the law.

The bill concerning the erection of mausoleums, passed by the Legislature and signed by the Governor, provides that plans for the construction of mausoleums, which are to contain twenty or more human bodies, shall be submitted to the State Board of Health, and that the mausoleums shall be maintained in a sanitary manner, free from any offensive or unhealthful odor. Penalties for failure to comply with the law are prescribed.

The Harlan bill has passed both houses and been signed by the Governor. The bill provides for the establishment of county hospitals for the care and treatment of persons suffering from tuberculosis and gives to boards of county commissioners the power to establish such hospitals and provides rules and regulations for the maintenance of the same.

The sanitary milk-can bill and the sanitary drinking-cup bill and the bill creating a hygiene commission have all been defeated.

The appropriation bill which has passed the Legislature gives \$65,000 a year to the Long Hospital and Indiana University School of Medicine for the first year, and \$75,000 for the second year. This is an important piece of legislation which will be welcome news to the medical profession.

Among other bills that have become laws is one to regulate the practice of dentistry. Another providing amendments to the Nurses' Registration law and giving the secretary of the Nurses Registration Board a salary not to exceed \$1,200 per year; a bill to amend the vital statistics law in such a way as to greatly strengthen the present method of collecting vital statistics; a bill to amend the sanitary school house law and intended to overcome some of the deficiencies of the present sanitary school house law in regard to the heating and ventilation of school buildings, and also to place the responsibility for compliance with the law on the architects as well as school trustees; a bill concerning insanitary nuisances,

which defines insanitary conditions and confers specific powers on the State Board of Health and local health officials in the abatement of all insanitary conditions.

One of the most important bills that unfortunately was defeated required a health certificate to be filed with the county clerk ten days before marriage license can be issued. According to the terms of the bill it was made unlawful for the clerk of the Circuit Court of any county to issue a license to marry any persons applying therefor without a certificate sworn to by a reputable licensed resident physician, which certificate shall certify that said persons applying for a license to marry are not, at the time of applying, or either of them, feeble-minded, of unsound mind, afflicted with an open case of tuberculosis or afflicted with any transmissible disease.

On the whole, the work of the Legislature may be considered fairly creditable. It is regretted that our educational, philanthropic and benevolent institutions received such scant consideration and courtesy, and that so many "fool appropriations and provisions" were made without the slightest hesitation; but then, it might have been worse, and we are thankful for small favors.

THE CHIROPRACTIC BILL

The chiropractic bill failed to pass the last session of the Indiana legislature. It is exceedingly fortunate that the bill was defeated, for never in the history of Indiana politics has a bill with more damaging possibilities been presented to our law-makers for consideration. The state already harbors within its border more pseudo-physicians and medical pretenders than we can well tolerate, and to legalize chiropractic, which is an offshoot of osteopathy, but without requiring any particular preparation for the work, would mean to let down the bars to a horde of charlatans who would impose on the sick and suffering to an extent unheard of before.

The absurdity of the scheme proposed by the chiropractors is evidenced by the statement made in the catalog of the so-called United College of Chiropractors of LaFayette, Ind.,. From this we quote as follows: "All that is needed to be successful in relieving all conditions due to spinal pressure is a knowledge of the spine and its relation to the various nerve trunks that leave the spinal cord through the foramen or opening in the spine. This knowledge can be acquired by anyone of average intelligence, under our methods of teaching, in a few weeks' time. . . .

The chiropractor cures and relieves the afflicted by removing the pressure of the subluxation that causes the trouble. . . . The remuneration is just as you see fit to make it. You charge according to the success and the amount of business that you have. . . . Our short course can be completed in sixty days, and most students are ready by then to begin work in the field of disease and suffering. . . . Our single tuition is \$100, payable on beginning the study and lectures. The tuition price for man and wife is the same as for one, except that the wife will have to pay \$10 extra on graduation for diploma and graduation expense to the management. . . . At present, the requirements to enter a chiropractic college are a common school education, average intelligence and earnestness to learn and become a proficient chiropractor. . . . It is the purpose of this catalog to enable those who are wearing their lives out in menial positions to better themselves and become independent. . . . Let your creed be, 'I will learn chiropractic, as it is a congenial occupation. I will win as others have. Others have gained the glorious goal, so will I. I will increase my income and be independent.'

Incidentally, it should be remembered that Dr. J. M. Hancock, the president and general manager of the United College of Chiropractors, in LaFayette, Ind., a school that makes chiropractors in sixty days, is no other than the quack who has appropriated the name of the "United Doctors," and incorporated the same in Indiana. For full information on this subject our readers are referred to the pamphlet entitled, "The United Doctors, Fake Specialists Who Prey on the Sick and Defraud the Public," printed and distributed by the American Medical Association. It is fortunate that the legislature did not legalize the work of this crowd of fakers, for, as *The Journal A. M. A.* says, "The success of these swindling concerns in making money depends on their use of the newspapers and the credulity of the people in accepting the false and fraudulent statements they make in their advertisements. When once the people know how they are defrauded and deceived in a matter so important as their health, and when they realize that the newspapers of their respective communities which they support are really partners in this cruel swindling game, they will call the newspapers to account, and the United Doctors and all the other shameless medical frauds of this character will suddenly find themselves out of business."

The chiropractors are even worse than some of the medical fakers who have at least a semblance of medical education. The chiropractors attempt to treat all diseases with the hands, and without the use of drugs; and they learn this wonderful (?) plan of treatment in sixty days, and publicly announce that financial returns from the practice are handsome. With the legal recognition of the chiropractors would naturally come a demand for recognition on the Board of Medical Registration and Examination, with the inevitable lowering of the standard which we now have, for by creating a majority on the Board the representatives of the pseudomedical cults could eventually wipe out of existence the present high standard of medical requirements and make Indiana the laughing stock of the neighboring states where a broad and liberal medical and premedical education is required before a license is granted to treat the sick and suffering who deserve and should have the protection of the state from medical frauds.

UNDESIRABLES ON THE BOARD OF MEDICAL REGISTRATION AND EXAMINATION.

The term of service of two of the members of the State Board of Medical Registration and Examination, Dr. Solomon G. Smelser and Dr. John F. Spaunhurst, will expire about April 1. Neither of these men should be reappointed. Both of them have persistently opposed advancement in the standard of medical education and have used their combined efforts to prevent enforcement of the standard of preliminary educational requirements which the majority of the board wisely adopted some two years ago. Spaunhurst is the osteopathic representative, and Smelser was appointed as a regular, but does not creditably represent the regular medical profession.

At the time the board was organized in 1897, five members were appointed, two of whom were regulars, one an eclectic, one a physio-medic and one a homeopath. It is to the everlasting credit of the latter that they have consistently and continually supported the best ideals and objects to which the work of the board should be directed. When the board was first appointed, four of the five members representing the different schools of medicine were selected by the Governor on the recommendation of the officers of the different state medical societies, and the fifth member was the personal selection of the Governor.

The law imposes on the board the duty of annually publishing a minimum standard of

requirements for medical colleges, and the duty of determining whether applicants for license are graduates of schools which at least comply with the minimum standard. At the time the law was passed there were seven medical colleges in Indiana. Two of these colleges were notorious diploma mills. At present there is but one medical school, which is the result of the voluntary union of all the regular schools and is the medical department of the Indiana State University.

The osteopaths some eight years ago were given a member on the State Board of Medical Registration and Examination on their agreement to a provision in the law that osteopaths should be required to comply with the same standard that other applicants for license were required to comply with, except as to teaching in materia medica and therapeutics. Under these requirements, which apply with absolute equality to all applicants, there have been but four osteopaths who have been able to secure license in the past four years. The first osteopath representative on the board, appointed some eight years ago, who was displaced four years ago by Spaunhurst had added to his qualifications as an osteopath by also acquiring a regular medical education and was consequently not regarded as a simon-pure osteopath.

Spaunhurst's record on the board should disqualify him for reappointment. He is not in sympathy with the present medical law, as may be seen by his refusing to comply with, or be bound by, the construction of the said act, furnished to the board by the Attorney-General, in relation to the student's exemption clause, which provides that a medical student in order to legally practice medicine must be under the direct and immediate supervision of a licensed physician. Dr. Spaunhurst is now, and has been for some time, violating this section of the law, by encouraging undergraduates to enter the practice at different towns in the state, viz., Seymour, Greencastle, Noblesville, Greenfield and Shelbyville, each practicing without a license or without making any attempt to obtain a license, and when prosecution is threatened they all claim to be "Spaunhurst Osteopaths," and are advertised as such by Dr. Spaunhurst himself, and all claim to practice under his direct and immediate supervision, though living from forty to sixty miles distant from his office. It is reported that each of these students is required to pay a certain percentage of the proceeds of their business to Dr. Spaunhurst, and he (Spaunhurst) pays the office rent and advertising bills.

The Attorney-General, in passing an opinion on this matter, has the following to say:

"A student communicating with a licensed physician by mail, and receiving communications from him with reference to patients, cannot be said to be under the direct and immediate supervision of a licensed physician. If such practice were permissible under the law, then it would be legitimate for as many non-licensed students to set up in various localities as practicing under the direct supervision of one physician with whom they respectively communicate by mail, as the physician could attend to. Such is unquestionably not the intention of the statute. It contemplates 'direct and immediate supervision' by a licensed physician; in other words, his presence in practical effect to take hold of the case of surgery, medicine or obstetrics, if the student goes wrong, and does not contemplate the setting up of students in distant towns from the licensed physician to practice under his so-called supervision. I am of the opinion that the practice you speak of is a clear evasion and violation of the law, and not in compliance therewith."

Spaunhurst also has made himself objectionable through his efforts to make merchandise of his position on the board by advertising that he is a member of the board and is therefore the leading osteopath of the state. Such advertisements have appeared in the Indianapolis *Sun* and *Star*.

It was Spaunhurst, who, in 1895, endeavored to secure special legislation giving the osteopaths a separate board, and a law similar to that recently urged by the chiropractors. This was defeated, but membership was granted. Dr. Holland of Bloomington was appointed as the osteopathic member of the board and made a satisfactory record during his incumbency, as he always acted in harmony with the members of the board. At the expiration of Dr. Holland's term, Dr. Spaunhurst was appointed, and has disgraced the position so creditably filled by his predecessor.

Dr. Smelser was appointed at the same time to succeed Dr. Webster of Lafayette, who had so creditably represented the Indiana State Medical Association from the time the board was organized. Dr. Webster was officially indorsed in writing by the officers of the Indiana State Medical Association for reappointment four years ago, but Governor Marshall appointed Smelser, as he afterward explained, without fully realizing that the Indiana State Medical Association was entitled to a member on the board according to the precedent maintained from the beginning of the board's organization, and for the further reason that he had promised to make the appointment. Governor Marshall was afterward so disgusted with Smelser's course on the board that he asked Smelser to resign. On the advice of his attorney, Smelser declined to resign unless charges were preferred. The matter dragged

along until several months ago when charges were preferred in writing against Smelser for incompetency. The charges included the fact that Smelser himself had failed on examination when he applied for license several years ago, and that he had failed a second time, but was given license on a charitable ruling of the board, which gives credits to those who closely approximate the *minimum* grade. He was also charged with opposing the advancement of educational requirements which were necessary to keep the standard of the Indiana State Board of Medical Registration and Examination on an equality with the educational standard of other states and with the progress of medical knowledge. Various other things were included in the charges, the day was set for the hearing and the Chairman of the Committee on Medical Legislation of the Indiana State Medical Association, who preferred the charges, announced his readiness to appear and prove every one of them. Smelser called on the chairman of the committee and begged him to withdraw the charges, but was met with a flat refusal. The day before the hearing Governor Marshall telephoned the Chairman, Dr. W. N. Wishard, and asked as a personal favor that the charges against Smelser be withdrawn. To oblige the Governor, who wanted to avoid the annoyance and publicity of the trial, the charges against Smelser were withdrawn. Governor Marshall afterward told Dr. Wishard that he had assurances leading him to understand that Smelser would resign after the charges were withdrawn. When Smelser was asked to keep his promise and present his resignation he declined to do so.

Both Spaunhurst and Smelser are unfit representatives on a board of this kind and neither should be reappointed. Dr. Smelser and Dr. Spaunhurst have been close friends and have voted together on almost all questions that have arisen and both voted against the raising of the standard of educational requirements. If the osteopaths cannot present a better representative than Spaunhurst, they should not obstruct the proper operation of the medical law by refusing to consent to the appointment of an osteopath who happens also to have a medical education in addition to his osteopathic diploma.

Smelser never possessed any qualifications which justified his appointment as a member of the board, and his manifest desire to cripple the medical law and keep down the standard of educational requirements, evidenced by his official acts as a member of the board, have disqualified him from reappointment. Aside from all this, the regular medical profession is distinctly

opposed to having an incompetent like Smelser tagged as being its representative.

It is hoped that Governor Ralston will appreciate the force of the argument that has been presented to him with reference to wise appointments on the Board of Medical Registration and Examination, and that under no circumstances will he give the slightest thought to the question of reappointment of that pair of incompetents and inefficients, Dr. Spaunhurst and Dr. Smelser.

EDUCATION FOR PARENTHOOD

As time goes on the sober-minded public as well as the more scientifically inclined of the medical profession are pondering over the responsibility of man toward man in a social way. Needless to say, this must begin with the conception of the child *in utero* and extend up through infant and child life to the periods of adolescence and moral and legal responsibility. Until the very recent past, thought along this line was more by way of diversion, of efforts put forth only during the byways of time. Latterly, the study has taken definite form in the evolution of distinct schools for the training of young women and young men for the function of parenthood.

Very recently, Dr. Helen C. Putnam has published an article on the subject.¹ In her article are reviewed certain facts relating to existing fallacies and shortcomings in the present state of parenthood in that in some instances evil is taught deliberately or carelessly, or again, certain parents may guard their own young in order to compromise either by employment, low wages or other commercial ventures, the children of other parents. Finally, ignorance alone is to blame for the neglect of certain ones either in occupation or pleasure. The assertion is made by the author that a large part of modern social effort is directed toward undoing the mistakes of parents.

Certain other undisputable facts stand forth, viz., manhood does not always mean a wise citizen any more than womanhood an unwise citizen; nor do political elections make wise government or wise school officials. The remedy, however, lies in proper education and the crucial education must be that for parenthood.

Certain inexorable laws for parenthood have been divinely established, and their violation,

voluntary or otherwise, brings injury not alone to present society, but to future generations, and impairs higher civilization. The search for such laws must be by expert students in scientific study of man, matter and social relations.

Next, potential parents must be made in a scientific way by children's teachers, since the foundation for good parenthood precedes such event; it is obvious that errors committed and duties omitted in childhood and youth cannot be corrected after parenthood is established. This preparation of teachers of potential parents has within the last two decades developed along definite lines in certain places until the preparation for wise parenthood has been developed into as definite a process as training for nursing, running a bank or building a bridge. Such training for parenthood was originated in the public schools of Boston by the intelligent persistence of college women, and against political endeavors or incapacity it is gaining ground in every state. It is surprising to learn that such courses for teachers are found in twenty or more universities and academic colleges, in twice as many special institutions and high schools, and practically every agricultural college. For the United States Department of Agriculture has been their strong supporter. As an illustration, the Department of Home Economics at the University of Wisconsin engages the larger part of a pupil's time for four years, the remainder being given to the study of language, literature, history, etc. The proper locating, planning and building of a house, its wise care, and the caring and feeding of a family are fundamentally dependent on certain laws of chemistry, physics and biology and on skill in the arts of applying them to the duties of parents. Such sciences are not taught as found ordinarily in men's curricula, but as they directly concern healthfulness of premises, clothing and habits, wholesomeness of food and finally character and social relations. The central thought of the whole course is the endeavor to improve the individual to the point that future generations may attain a higher level than the preceding ones. In other words, the ideal is the infinite responsibility of future generations.

A summary of other studies of social relations includes a preliminary two and one-half years spent in chemistry, physics, biology, bacteriology, physiology and household management. Embryology from the point of the single cell and its fertilization, both in plant and animal life, is usually transcribed to the knowledge of human life. Heredity as made up of the Mendelian laws of inheritance, of inherent characteristics

1. Bulletin of the American Academy of Medicine, Vol. 14, No. 1, pp. 55-66.

and acquired characteristics, the effects on germ plasm of alcoholism, syphilis and drug habits, teaches the fact that drunkards, insane, feeble-minded, habitual criminals and sexually depraved men and women, usually have children with defective nervous systems, and generally breed their kind. In a word, the real significance of good stock on both the paternal and maternal sides is taught. Armed with such knowledge, teachers can, directly and indirectly, do much to develop throughout the country right ideas of marriage, to replace unwholesome ones now common among young people and their parents who should know and teach their children better.

The author lays great emphasis on the necessity of regarding syphilitic and gonococcal infections as distinct contagious diseases, multifarious in their manifestations and deplorable in the misery wrought to homes. They are not less than five times as prevalent as tuberculosis and all other contagions together, and injure wives and children to an inestimable extent. The morbidity and mortality from these diseases are too well known to require further emphasis here, but their devastating effects should be forcefully impressed on the young.

Students see logically that control of these contagions should be the same as the control of small-pox, scarlet fever and any other reportable disease, and it is deplorable that boards of health do not enforce health laws regarding the control of these diseases where such laws have been enacted. It is the duty of physicians to cooperate in the control of these contagions just as vigorously as in any of the commonly accepted contagious diseases; and they, too, can lend their influence in obliterating the all-too-prevalent idea of the so-called double standard of morals.

It is to be hoped that education for parenthood will bring with it governmental protection of marriage from the standpoint of health by the enactment of rigid laws dealing with just this subject.

Other factors dealt with in this line of education will include questions of sociology, labor laws, the physical and mental development of the child and adolescent, the influence of city and country life on development, kinds of education adapted to different kinds of children, the various phases of infant mortality, the pension system for mothers whereby a small sum enables a mother to stay at home and nurse her babies, the cause of reduced birth-rates, children and industry, child psychology, and the study of the nervous states and hygiene of children, etc.

As auxiliaries to such topics in schools, nurseries, hospitals or other institutions may be utilized

and their cooperation gained. Many universities and colleges giving these educational courses have winter extension courses of a week or more which are taken advantage of by thousands of farmers' wives and other women. Another method of attack has been through the organization by competent teachers of hundreds of classes of mothers and of parents where study of home cooperation in the education of their children is being steadily developed.

Proper knowledge concerning this subject can be instituted by the teachers of the youngest grade by the study of flowers, birds and other animals where mother flowers or animals and father and baby flowers and animals are spoken of in a way comparable with human life; in such way there is brought out the subconsciousness of every life from fathers and mothers, the fertilization of seeds and the effects of heredity and environment in life. Later on the subjects of biology and embryology are taken up by microscopic study.

As an instance of the wholesome effect of such teaching, there were in a certain school a couple of precocious and unclean-minded boys somewhat older than the others, whose mental and moral development underwent a complete revolution simply through the effect of what they learned at the hands of their teacher in this course. It is indeed a matter of record that within the last few years former pupils who have become parents have gratefully expressed the illumination and help derived by them from this source.

Certain well-defined principles must obtain in this work. It is obvious that not all teachers should undertake it, but only those prepared to teach the elementary science of living things and with an understanding of elementary sociology. It is but natural that the handling of plants and animals inculcates a much more scientific search for law in the minds of pupils than will books or talks. Again, direct sex instruction should only be given after there has been a well-laid ground work established in the renewal of life in all nature. This can be accomplished along with the elimination of the vulgar attitude toward the inevitable when facts of sex stand alone. The author calls attention to the sorrow and suffering incident to the omission from education of questions of reproduction.

The author feels that certain things should be agitated and organized effort made toward securing their accomplishment. Among these are: (1) Compulsory control of syphilis and gonococcus infections by boards of health. Here again, the author emphasizes the necessity of dropping the unscientific names "venereal," "shameful" or

"sexual" diseases in that oftentimes such infections are innocently acquired and a knowledge of them should not be suppressed by regarding them as always hidden evils. (2) Efficient teaching of home-making among our twenty million young people between the ages of 16 and 24 now out of school and in the strategic years when home-making instincts are waking. (3) Sensible teaching of the science of living things, as by nature study, elementary biology, botany, zoology, etc., as a compulsory study in elementary and secondary classes. No better termination can be made of this most excellent contribution than has been made by the author herself:

"Schools should aim to create a national consciousness and subconsciousness developing through childhood, that life is a trust received from many who have gone before, to be guarded and bettered in one's turn, and passed along to many after him, and simply and easily demonstrable to the more vague idea of God, stimulating an early sense of responsibility that is to moral life what physical exercise is to bodily life."

Certain it is that there is no problem in the training of children which can be of greater benefit either to the child itself or to his race, than a proper conception, from early childhood up, of his moral obligations, not alone to himself, his ancestry and his offspring, but to his fellow-men. It would seem that time judiciously spent in this line of study without overemphasis of the common or vulgar phases would bear fruit of one of the greatest assets of both the educational and physical world. We as physicians hold almost a sacred place in the homes and in our dealings with those who consult us. No physician has done his full duty in the handling of cases which bear on this subject without bending at least some effort toward education along this line.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE St. Joseph County Medical Society publishes a monthly bulletin which is a credit to the medical society which has adopted that feature of announcing the society programs and furnishing news notes and other information interesting to the members. The plan of publishing abstracts or discussions of papers is espe-

cially worthy of praise, for it stimulates more and better discussion by those who take part in the program.

THE secretary of the Posey County Medical Society says that he desires to "put Posey County on the map." He has our best wishes for success, and we can only suggest that "where there is a will there is a way." An energetic and good-natured county medical society secretary can build up his society if he will go at it in the right way. The most important thing to remember is that a society should meet at a regular time, with no postponement of date, and never fail to have a program even if it is nothing more than case reports.

EVERY doctor in Indiana who is interested in keeping up the preliminary educational requirements for the practice of medicine in the state, and who is also interested in having on the Board of Medical Registration and Examination medical men who will maintain and enforce the present medical law, should write to Governor Ralston at once and protest against the reappointment of Drs. John F. Spaunhurst and Solomon G. Smelser, incompetents and undesirables, who are now members of the Board and seeking reappointment.

You want a good journal. To publish a good journal requires something more than a good editor. It requires money. Subscriptions to THE JOURNAL pay about one-third the expense of publication, the balance comes from advertising. The advertiser will not continue his advertising without returns, and returns from the advertising mean patronage from you. Therefore, we earnestly urge you to patronize THE JOURNAL advertisers, and to let them know that you do it. Reciprocity helps us all. Let us pull together.

A PHYSICIAN of North Manchester reports the death of the Wabash County Medical Society and advises us that obituary will follow later. We sincerely hope that a county which has several progressive cities and towns and once boasted of having a large and progressive medical organization will not be erased from our county medical society map. The members in the city of Wabash ought to be interested in keeping the obituary from appearing in the columns of THE JOURNAL, and it is evident that the Councilor for the Eleventh District has some work before him if

medical society conditions in Wabash County are as reported.

THE Western Surgical Association in accordance with the sense of a resolution recently passed, announces that it will be pleased to receive the resignation of any member, if such there be, who feels that he is not willing to live up to the provision of the Association which requires that members shall abstain from the practice of fee-splitting in any form, and that he will not countenance it in others.

This certainly puts the matter in its proper form and we think that all societies will be better if they purge their membership of those who are not in sympathy with the movement to stamp out the pernicious practice of fee-dividing under whatever guise it is followed.

CONCERNING medical society delinquents, we would like to suggest that a medical society is better off without some members who never do anything but pay dues, and not even that without a great deal of urging. A society is better for having on its membership list only "live" members. The "dead" ones are a detriment; they never show up, except when there is trouble in the air, and then they are on hand to raise as much Hell as possible. Better have a few good active members who contribute something to the success of the society than a large number the majority of whom are worthless except to hinder the wheels of progress.

DR. MILES F. PORTER of Fort Wayne, in a letter published in the correspondence department of this number of THE JOURNAL, suggests that we separate the sheep from the goats in the fee-splitting proposition. We are quite willing to follow the suggestion, and shall be pleased to have our readers, no matter whether specialists or general practitioners, notify us as to whether they desire to be classed with the fee-splitters or the antifee-splitters. The names will be published, and we believe that those who are divided on the proposition should be willing to stand by their colors. We hope that the surgeons will not be bashful, and that we may hear from a goodly number of them.

THE entire medical profession of Indiana owes a debt of gratitude to Dr. W. N. Wishard, who, as Chairman of the Legislative Committee of the State Association, has been untiring in his efforts to safeguard the interest of the profession from

the onslaught which biannually occurs at the session of the State Legislature. At such times it takes a rare combination of high ideals, force of character and honesty of conviction, combined with a sagacious political instinct, to successfully stem the tide of public ignorance and the spirit of charlatanism that regularly floods our legislative halls, frequently drowning the honest legislator. Dr. Wishard is a man of that character, and has ably discharged the duties imposed on him.

IN this number of THE JOURNAL we print a letter which the editor has received from Dr. Edwin Walker of Evansville, a well-known surgeon, a painstaking observer and in every sense a progressive thinker. We have given a title to the letter, "Dr. Friedmann and His Consumption Cure," and we believe that what Dr. Walker has to say will prove of interest to our readers, inasmuch as the deductions are based on investigation of Friedmann and his claims, the investigations and observations having been conducted in Berlin and continued during the voyage to America, while Dr. Walker was a fellow passenger of Dr. Friedmann. The verdict that Friedmann is a man who has been weighed in the balance and found wanting corresponds with our view of the matter.

WE have no fault to find with Dr. Friedmann for his refusal to give to the medical profession full particulars concerning his consumption cure. We rather admire the man for his independence and his determination to definitely settle the question of the value of the new cure before submitting it to medical men who are rather reluctant to give credit where credit is due. But we do object to the very evident spirit of commercialism which has led Dr. Friedmann to come to America within a few weeks after the announcement of his cure and immediately following the offer of one million dollars for the cure if it proves to be all that its discoverer claims. We would have more faith in the claims put forth, and more respect for Dr. Friedmann had he continued quietly at his work in Germany where there is an abundance of material and ample opportunity to demonstrate the value of his claims, even if he refused to divulge his secret to the medical profession. On the whole the cure and its originator do not ring true.

THE Indianapolis Medical Society will consider the question of fee-dividing by acting on an amendment to the Constitution and By-Laws.

The amendment will define fee-splitting, rebating, or the giving or receiving of commissions in the matter of medical or surgical fees as gross misconduct, and will provide for the automatic expulsion of a member against whom charges have been preferred and substantiated.

Why would it not be a good scheme for every county medical society to pass some such resolution as was adopted by the Western Surgical Association, which proclaims that the Association will be pleased to receive the resignation of any member, if such there be, who feels that he is not willing to live up to the provision defining fee-dividing in whatever manner it is practiced as intolerant and unbefitting a member of the Association?

THE fee-splitting evil has received attention at the last meeting of the Western Surgical Association by the adoption of the following resolutions:

Resolved, That it is the intention of this Association not to countenance the practice of fee-splitting in its members nor in its applicants for membership, and that we incorporate in the application blank for membership in this Association a clause, to be signed by the applicant, stating that he does not now practice and will abstain in the future from the practice of fee-splitting in any form and that he will not countenance it in others.

It is further suggested that this Association would be pleased to receive the resignation of any member, if such there be, who feels that he is not willing to live up to this provision.

Resolved, That the Western Surgical Association ask the cooperation of the various American Surgical Associations, the State and Interstate Medical Associations, and the Regents of the State Universities to cooperate with this Association in the suppression of both the secret and the open fee-splitting evil in its various forms.

IN this number of THE JOURNAL will be found a notice from the program committee of the Association concerning the acceptance of papers for the West Baden session. We wish to commend the action of the committee in efforts to shorten the program and give more time for discussion, as also the adoption of a rule requiring the furnishing of abstracts of all papers for publication in an early number of THE JOURNAL. The shortening of the program is absolutely necessary if the most is to be accomplished from the program. Few essayists will be content to present a paper and have it passed without discussion. The publication of short abstracts in THE JOURNAL prior to the annual session will enable members to prepare for the discussion, and concerning this matter of discussion we desire to protest against the practice followed

last year which permitted the members to write out their discussions after they returned home from the Indianapolis session, and resulted in an influx of manuscripts covering remarks that were for the most part never made.

We sincerely hope that the program committee will accept a limited number of papers for this year's session of the Association and refuse to permit more than five papers to be presented at any one meeting. Each essayist should be required to furnish, for publication in THE JOURNAL, an abstract containing not less than fifty nor more than two hundred words. Those who discuss the papers should on request be permitted to edit the stenographer's report, but under no consideration should a member be permitted to add to or change the meaning of his discussion.

THE Federation of State Medical Boards held an annual meeting in Chicago on February 25. A very interesting program was carried out and many questions concerning a higher standard of requirements for the practice of medicine were discussed. But we would like to suggest that many of those who were in attendance and who talked so glibly about the question of raising the standard of requirements for the practice of medicine ought to be discussing and adopting means for enforcing the requirements we already have.

DOCTOR, do you pay any attention to the advertising in THE JOURNAL? If not, why not? Don't you know that without the income from advertising THE JOURNAL would go out of existence, and that to keep up our advertising income the advertiser must get returns from his advertising, and that means patronage from YOU? If you don't patronize the advertisers, why don't you do so? We are constantly refusing objectionable advertising, and for the sole purpose of placing before you advertising pages with announcements in which you can place confidence. Our advertisers can supply you with practically everything you need in your professional work. They are trustworthy, and why give your patronage to others when it is the advertiser in THE JOURNAL who is helping you by giving you a larger and better journal? You are one of the owners of THE JOURNAL, and should be interested in its success. You owe it to THE JOURNAL as well as to yourself to patronize the advertisers who are helping to make a periodical which has the reputation of being second to none of the many state journals. The editors are willing to give their time and energy

to the enterprise, but they need and should have the cooperation of the readers in trying to make the most important feature connected with it—the expense—turn out satisfactorily. Will you not do your part? And while we are on this subject we want to suggest that you make your assistance felt by mentioning *THE JOURNAL* when writing advertisers.

FEE-SPLITTING certainly is raising considerable disturbance, and if there were a single thing in its favor, there would be little or nothing said against it. As it is, the practice is being condemned by right-thinking physicians from one end of the country to the other. Aside from this, the public is beginning to discuss the matter, as evidenced by the publication of numerous articles on the subject in newspapers and popular magazines. Governor Marshall (now Vice-President Marshall), in a message to the Indiana legislature, saw fit to condemn fee-splitting among physicians, and suggested that the matter be given legal consideration by the enactment of a law to stamp it out. In the closing days of the last Indiana legislature, a bill making fee-splitting among physicians a misdemeanor was introduced in the Senate, but in the press of other bills it failed to receive the consideration that it deserved.

In view of the storm of disapproval which appears on every hand, can it be possible that there is a single physician who dares to openly defend fee division in whatever guise it is practiced? It would seem that the time has arrived when medical men should stir themselves to get on the right side of this question and save their self respect as well as the self respect of the profession as a whole. Certainly it is a pity that a practice which is essentially dishonest and is so tinctured with commercialism should receive its knockout blow at the hands of the public backed by legislative enactments! As an honorable, self-respecting medical profession we should have stamped out this evil long before it came to the attention of the public, but inasmuch as we have not been able to do so, we welcome the interference by others.

As was to be expected, the Indiana Legislature at its recent session, paid more attention to hogs than to babies. As Dr. Hurty says, "The Legislature refused to do anything to save infant life and at the same time has voted money to publish a book on fish and game, and also has given \$25,000 for serum to save pigs from cholera.

This is a curious and strange situation. By this we again learn that human life is the cheapest thing on earth when it is to be saved in a rational, practical manner. It is dear when it is destroyed by arsenic or by an assassin. If a mother were to destroy her child with arsenic the law would make a great fuss and furor, and there would be plenty of money for prosecution. If, however, she destroys it through neglect, or ignorance, or by infectious disease, then, of course, that is all right. What a curious people we are anyhow."

"We receive scores of letters annually asking for information concerning the hygiene of infants. These come from first mothers. We wanted to publish a "Mother's First Baby Book," nicely and attractively bound and send one to every first mother. Five thousand dollars was asked for this purpose, and it would be little enough, and then we would not be able to send a book to every one of the 35,000 young mothers of the state who register their first born in any year. The idea of saving children caused a hearty laugh to go over the whole legislature, and the appropriation was mopped off the bill in a hurry. Then immediately followed an appropriation for \$30,000 for a horse barn at Purdue, also \$30,000 for a veterinary clinic at Purdue, also \$2,500 for a fish and game book, also \$24,000 for hog serum."

(Since the above was written the legislature, during the last few hours of its session, appropriated \$2,500 for the "Mother's First Baby Book," and at about the same time appropriated a similar amount for the publication of autobiographies of members of the legislature.)

DUE to the untiring efforts of some of the county medical society secretaries and to the fact that the secretary of the State Medical Association sent out an appealing letter to each of the 500 delinquents, the membership of the Association during the month of February received 254 additions, which is 100 more than we had this time last year. Twenty-four counties have so far reported a total gain of sixty-four members. Fifteen more counties have equaled their last year's record, and it is up to the remaining forty-eight to at least do as well as they did last year. It is not in the spirit of criticism that attention is called to the following counties that are short in their membership 25 per cent. or more: Adams, Carroll, Franklin, Greene, Hamilton, Hancock, Henry, Lagrange, Morgan and White. This is done in order that those who are already members in these county societies may

get out and help their secretaries collect the outstanding dues.

The letter that was sent to the delinquents invited them to answer with their reasons for staying out of the State Association. These answers had an infinite variety, but of all the reasons for not retaining their membership for this year none was more amusing and none the less valid than the member who was suspended because he had attended but one meeting during the past year, although at that meeting he had read a paper. From further inquiry it was discovered that this particular county society has a rule that a member who does not attend four meetings out of a possible twelve is disqualified. If that rule were operative in every county requiring an attendance of 25 per cent. at the meetings, I doubt whether we would have 1,000 members. While perhaps not recommending such stringent measures for every county society, and especially in the country districts where attendance means a long drive, the fact remains that members should not be allowed to enjoy the privileges of county membership who never attend the meetings from one year to the next.

CHAS. N. COMBS, Sec'y.

VERY recently a Fort Wayne physician presented a paper before his local medical society in which he took occasion to severely arraign the medical profession for some inconsistencies and abuses, citing particularly the reprehensible practice of fee-dividing and the habit of some regular physicians of recognizing irregulars, criticized the lay press for its attitude toward patent medicines and quack doctors, found fault with certain women's clubs for inviting irregular physicians to address them, and incidentally gave vent to a few sarcastic remarks concerning osteopaths in general and one osteopath in particular. As an aftermath, the reader of the paper was called from his office one evening, presumably to attend an injured child, and in an unguarded moment was viciously assaulted by the osteopathic physician who had been maligned and who admitted that he was adopting pugilistic argument to obtain satisfaction. It was a cowardly and villainous attack, and the police judge saw the matter in that light and imposed a sentence of \$100 fine and thirty days in jail, the latter being subsequently suspended on payment of the fine. In connection with the mix-up, the local medical society engaged in a heated debate on the question of publishing and distributing to the public the address that had caused all the trouble. Incidentally, the practice of fee-dividing came in for

a lively discussion, and on this subject the end is not yet.

As one physician has stated, "The way of the reformer is rough." We might also add that the methods of bringing about reform should be carefully considered before being put into operation. There is not the slightest question of doubt but that the agitation which created such a disturbance among physicians, newspapers and public in the city of Fort Wayne had a righteous and just foundation, and the cause deserves to win. It is unfortunate that the manner of procedure was so tactless. We are reminded of the story of the Irishman who was perfectly willing to be called a prevaricator, but instantly licked the man who called him a liar.

To the Members of the Indiana State Medical Association:

The Program Committee most earnestly desires to be able to present for the October session a program well balanced as to subjects and localities—a difficult task calling for the cooperation of all those interested in the work of the Association. In the furtherance of these ends the following suggestions are offered:

1. Response should be made at once of all those desiring and entitled to read papers, stating the subject which will be written on. This information will put the Committee in possession of knowledge which will prevent duplication of papers. Should it appear that two persons have chosen the same subject, let one read the paper and the other discuss it. This early information will likewise show wherein the program needs strengthening, and effort should be made to secure papers to round out the subject. In other cases it may be thought wise to combine papers in a symposium, asking readers to limit their considerations to certain phases. If from among those volunteering papers there should be none dealing with important live topics of the day, then we construe it to be our duty to try to secure papers dealing with such unconsidered subjects.

2. The Committee will insist on having a synopsis of the papers to be read, at latest by June 1. The printing of these in *THE JOURNAL* at that time will enable discussants to gather the trend of papers and prepare thoroughly for discussion of them.

3. The Committee has received numerous requests to reduce the number of papers and give greater opportunity for discussion. If some papers, therefore should be refused and others solicited it will not be because of personal prej-

udices of the Program Committee, but because it is the desire to furnish the Association a concise and well-balanced program, representing up-to-date medicine and surgery. In concluding, we wish again to urge immediate response on the part of all those who desire or expect to read papers at the next session, giving the subject.

FRANK B. WYNN, Chairman,
J. C. SEXTON,
CHAS. N. COMBS,
Program Committee.

DEATHS

ALONZO W. COFFIN, M.D., died at his home in Carlos City, of tuberculosis, February 5.

HIRAM G. NELSON, M.D., aged 74, died of apoplexy at the state I. O. O. F. home, in Greensburg, February 7.

HENRY O. RITTER, M.D., of Orangeville shot himself through the heart February 15. Dr. Ritter was born in 1866.

EDWARD KENNEDY, M.D., formerly a practitioner of Freetown, Jackson County, died at his home in San Diego, Cal., aged 42. Dr. Kennedy went to San Diego on account of failing health.

JOHN E. CHITWOOD, M.D., Cincinnati College of Medicine and Surgery, 1864; until 1909 a practitioner of Connersville, died at his home in Indianapolis, February 8, from heart disease; aged 68.

BROOKFIELD GARD, M.D., a graduate of the Eclectic Medical Institute, Cincinnati, 1865; one of the oldest practitioners of Fort Wayne, died at his home February 2, from cerebral hemorrhage; aged 80.

LEWIS SHEPARD, M.D., formerly a practitioner of Newport, died on his farm near Quaker, where he had lived in retirement for several years, recently. Dr. Shepard was a graduate of Miami Medical College, Cincinnati.

THOMAS J. MONTGOMERY, M.D., for forty years a practicing physician of Owensville, died at his home, February 20, after a long illness. Dr. Montgomery was born Sept. 15, 1839, near Cynthiana, graduating from Rush Medical Col-

lege in 1863, locating in Owensville in 1869. Dr. Montgomery was 73 years of age.

HAMLIN SMITH, M.D., a graduate of the Medical College of Ohio, Cincinnati, 1860; since 1863 a resident of Brownstown, Ind.; postmaster for eleven years; deputy United States Revenue Collector from 1864 to 1866, and deputy United States Marshal in 1870, died at his home in Brownstown, January 28; aged 74.

ISAAC W. DOUGLASS, M.D., the oldest practicing physician in Clinton County, died at his home in Michigantown February 5. Dr. Douglass graduated from the Cincinnati College of Medicine and Surgery in 1864, beginning the practice of medicine in Michigantown in 1862. Dr. Douglass was a veteran of the Civil War.

FLAVIUS J. VAN VORHIS, M.D., a graduate of Rush Medical College, 1866; of Indianapolis, assistant surgeon of Volunteers during Civil War; a graduate in law of 1880 and a state senator from 1881 to 1883; a pioneer in health legislation, who drafted and secured the passage of the law creating the first state board of health, died in the Methodist Episcopal Hospital, Indianapolis, February 9, three weeks after an operation for the removal of gall-stones, aged 72. Dr. Van Vorhis was elected vice-president of the State Association in 1881.

SCOTT CULBERTSON, M.D., one of the best known men in Switzerland County, died at his home in Vevay, February 13, after a short illness from erysipelas. Dr. Culbertson was born near Moorefield, Ind., on Sept. 17, 1852. He graduated from the Louisville Medical College, and first engaged in the practice of medicine near Lincoln, Neb., and took post-graduate courses at the Chicago Medical University and the Bellevue Medical Hospital, New York. Dr. Culbertson served as auditor of Switzerland County from Jan. 1, 1909, to Jan. 1, 1913. He was a member of the Switzerland County Medical Society and the Indiana State Medical Association.

J. L. THOMPSON, M.D., for years the leading oculist of Indiana, died at his home in Indianapolis, March 5, 1913, after a week's illness with pneumonia. Dr. Thompson was born in London, England, Oct. 5, 1832. He came to this country in 1850 and to Indiana in 1852. He attended

Rush Medical College, graduating in 1860. In the early part of the Civil War he served as Acting Assistant Surgeon at Memphis and Fort Pickering, later was made Surgeon of Fourth United States Heavy Artillery, colored troops, and near the close of the war was Medical Director of Western Kentucky. After engaging in general practice for a few years in Rush County, Indiana, and at Harrison, Ohio, he took a special course on the eye and ear under the celebrated pioneer in ophthalmology, Dr. Elkanah Williams of Cincinnati, and was his assistant for a while. He came to Indianapolis in 1871, where he soon acquired a very large eye and ear practice, his successful results bringing him patients from a great extent of country. He was Professor of Diseases of the Eye and Ear in the Medical College of Indiana from 1874 to 1889, when he resigned and was succeeded by his son, the late Dr. Daniel A. Thompson. He was President of Marion County Medical Society in 1883, was an active member and regular attendant of the State Medical Association and American Medical Association, representing Indiana on the nominating committee in 1893, when Dr. Hibberd of Richmond was made president. He read a number of papers and frequently participated in the discussions of the Eye Section of the American Medical Association, serving as its chairman in 1892. He was a member of the International Medical Congress at Milan, Italy, in 1880, and of the International Ophthalmological Congress at Edinburgh, Scotland, in 1894. He read a paper by special invitation, before the British Medical Association on "Some Unusual Forms of Opacity in the Crystalline Lens." His reputation was international. As the writer of these notes was leaving the clinic of the eminent teacher, Landolt of Paris, the last words he heard were, "Give my love to Dr. Thompson." They had met a number of times at medical meetings and were great friends. Dr. Thompson's ability as an operator was remarkable. He operated very rapidly, using either hand. He preferred a cataract knife devised by himself, the blade being curved and the sharp edge on the convexity of the curve. Dr. Thompson was also a member of the Loyal Legion and the Indianapolis Literary Club. He was president of the latter in 1894-5, was one of the acknowledged wits of the club and also an authority on American history and Grecian mythology, two subjects in which he took great interest. As a toast-master he was almost without a peer. Dr. Thompson married Martha Tevis in 1861. She died in 1898. They had two children, Dr. D. A. Thompson, his associate in business for nearly twenty years (who died in 1904),

and a daughter, Emma Louise, who married Dr. John H. Oliver, the well-known surgeon. A sister also survives Dr. Thompson, Mrs. Bergh of Chicago. The doctor's home life had been very happy, marred only by the great sorrows, the loss of wife and son. As a citizen he was known for his patriotism and his philanthropy. To the writer he stands out most prominently as a man of high ideals, strict justice and unimpeachable honor, and one to be remembered for his personal kindness, his wise advice, his inspiring example, his loyal support and his priceless friendship. In the words of the Arabian poet,

"O friend, thou findest many friends
like me!
But I shall never find a friend like thee."

F. C. HEATH.

NEWS NOTES AND PERSONALS

INDIANAPOLIS

DR. J. R. EASTMAN and wife have recently returned from a month's trip to Panama and the West Indies.

DR. WALTER SHARP, after a prolonged convalescence from a gall-bladder operation, is again able to take up his professional work.

DR. OVERMAN and wife have been spending a month in the East, their time being divided between Old Point Comfort, Va., and New York City.

THE ambulance service of the City Dispensary has been removed to the City Hospital, and two new motor ambulances have been purchased by the Board of Health to care for this service.

DR. J. H. TAYLOR was painfully injured recently when he was run down by an automobile, as he stepped from a street car. His injuries were not serious, but he has been laid up for some time as a result of the accident.

COMPETITIVE examination for appointment to eight places at the City Hospital and four at the City Dispensary will be held by the Board of Health, March 21 and 22. These places are open to the graduates of about twenty-five medical colleges.

DR. LOUIS BURCKHARDT, while driving his machine on Pennsylvania street, recently, was struck broad-side by a speeder, who, fortunately for Dr. Burckhardt, was driving a lighter machine. Dr. Burckhardt's car was badly damaged, but he escaped with a few cuts and bruises.

DR. L. L. LUMSDEN, of the public health service at Washington, who has gained prominence by his exhaustive study of typhoid fever and the hookworm in southern states, was among the speakers at the annual convention of the Indiana Sanitary and Water-Supply Association, held at the German House, February 25 and 26.

DR. MARY A. SPINK, who was appointed by Ex-Governor Marshall as a delegate to the Fifteenth International Congress of Hygiene and Demography, has prepared a detailed report of the session, which was published in the *Indiana Bulletin of Charities and Corrections*, December, 1912. The report may now be obtained in reprint form.

THE Phi Chi medical fraternity held its annual banquet at the Claypool Hotel, Friday evening, February 28. About forty active and associate members were present. The visiting members were: Dr. Geis, representing the Chicago chapter; Mr. Depper, the Bloomington chapter, and Dr. James Baker, from Mattoon, Ill.

AN amendment to the constitution and by-laws of the Indianapolis Medical Society has been submitted, which defines fee-splitting, rebating or the giving or receiving of commissions in the matter of medical or surgical fees as gross misconduct, and provides for the automatic expulsion of a member against whom charges have been preferred and substantiated.

AN open-air school has recently been opened in the Lucretia Mott Building, near Washington and Rural Streets. It is not the intention to confine the enrolment to pupils who have complained of ill health, as the effects of the open-air school work will be observed on others as well. The pupils will be dressed in suits resembling those of the Eskimo. Tuberculous children will not be admitted.

THE new St. Vincent's Hospital, on Fall Creek Boulevard, between Capitol Avenue and Illinois Street, was opened the first week in February. The new institution is classed among the premier

hospitals of the country, and incorporates the best medical and architectural ideas of both America and Europe. When all contemplated work has been completed, new St. Vincent's will have cost approximately one million dollars.

AT a recent meeting of the Indiana Association for the Study and Prevention of Tuberculosis, the following officers were elected: President, Severance Burrage, Indianapolis; vice-presidents, Miss Rhoda M. Welding, Terre Haute; Senator John W. Kern, Indianapolis; Dr. Theodore Potter, Indianapolis; recording-secretary, Miss Y. C. Harrison, South Bend; treasurer, James W. Lilly, Indianapolis.

INDIANAPOLIS physicians have been interested in the successful launching of the Physicians' and Dentists' Credit Rating and Collecting Association. The directors are Drs. Molt, Wishard and Pantzer. The object of the organization is to assist physicians and dentists in collecting bad and difficult accounts. Its value as a collecting agency has been powerfully augmented by coalition with an already existing mercantile agency which has an accurate credit rating as to commercial credit of 162,000 residents of this city. The credit rating as given by physicians and dentists is to be accepted by the mercantile agency in making up the data of the credit of an individual. This means that an abuse of professional credit is quite as serious a matter to individuals as is the abuse of commercial credit. We are informed that the knowledge of the existence of this association has proved a useful stimulant to indifferent debtors of physicians and dentists.

GENERAL

DR. JAMES MILES of Merom is in DeLand, Fla., for the winter.

DR. W. A. LISMAN of Carlisle has spent the winter in Los Angeles, Cal.

DR. JAMES A. HARPER of Shelburn is spending the winter in New Smyrna, Fla.

DR. GEO. E. CLEMENTS has resumed practice in Crawfordsville, after an absence of two years in Europe.

DR. J. R. CROWDER of Sullivan recently returned from a two weeks' business trip to St. Petersburg, Fla.

DR. H. H. DUTTON of Paragon and Miss Ida Reid of Lewisville were united in marriage at Martinsville, January 25.

DR. GRANT C. MARKLE, Winchester, was seriously injured January 29, in a collision between his automobile and a freight train of the Big Four system.

DR. C. F. BRIGGS of Sullivan was called to Denver, Colo., recently, because of the critical condition of his wife, who has been in a sanitarium there for the past year.

A PULMOTOR, a device used to produce artificial respiration and resuscitate people who have been drowned, electrocuted or overcome by gas, has been presented to the Hope Hospital of Fort Wayne, for public use.

ON account of the prevalence of small-pox in Evansville, the Board of Health ordered that every school child be vaccinated. On account of failure to obey this order, 500 children were excluded from the schools.

SIXTEEN regular physicians and one osteopath received licenses to practice in Indiana as a result of a recent examination conducted by the State Board of Medical Registration and Examination. Only one person examined failed.

A COMPLIMENTARY dinner was tendered to Dr. William J. Robinson, in recognition of his public activity as a writer and lecturer, and in celebration of the tenth anniversary of the foundation of the *Critic and Guide*. Dr. A. Jacobi acted as toastmaster.

DR. GEORGE F. BUTLER, Professor of the Department of Therapeutics and of the Department of Preventive and Clinical Medicine in the Chicago College of Medicine and Surgery, has been placed in charge of the Medical Department of Mudlavia.

A SOCIETY FOR THE ADVANCEMENT OF CLINICAL STUDY has recently been organized in New York City, the purpose of which is to maintain a bureau of information which will furnish to resident and visiting physicians definite information regarding the clinical facilities of the hospitals and laboratories of the greater city. For this purpose a bulletin board has been installed

at the Academy of Medicine, 19 West 43rd Street, in charge of a special clerk who will be on duty between the hours of 9 to 6 to answer all telephone inquiries (Telephone 974 Bryant). The bulletin board will consist of two sections, on one of which will be posted month by month, the regular clinics, medical and surgical, and also laboratory demonstrations, all of which are held at stated hours. The second section will include full announcements of daily operations and demonstrations of cases both medical and surgical, which as far as possible will be announced on the day preceding their performance. It is believed that these facilities will afford physicians who are interested in observing particular operations and operators or clinicians, an opportunity to obtain the desired end with the least trouble. It is hoped that by this means the large and unexcelled clinical facilities of New York City will be made more accessible to those who may desire to make use of them.

AN interesting table of statistics furnished by the Physicians' Defense Company of Fort Wayne, Ind., is given below. This gives a recapitulation of the basis of all malpractice suits which have been passed on by the Supreme Courts of various states.

| | |
|---|--------|
| Fractures | 47.1% |
| Miscellaneous | 18.1% |
| Surgery | 17.5% |
| Obstetrical | 5.3% |
| Dislocations | 3.5% |
| Erroneous Diagnosis | 2.7% |
| X-Ray (Use of) | 2.0% |
| Conduct of Autopsies or Inquest | 1.6% |
| Prescription and Dispensing of Drugs .. | 1.3% |
| Conduct of Insane Investigations | .9% |
| | 100.0% |

From the above, it will be seen that the most prolific source of malpractice suits is the treatment of fractures. Under the heading "Miscellaneous" are included cases in which the nature of the injury or treatment is not clearly set forth in the court's decision, or where the cases were appealed on some legal technicality and the original cause of action was not considered in deciding the appeal.

This table indicates that no practitioner, whatever the scope of his work, is exempt from the liability of being made the defendant in one of those annoying actions, for the general practitioner and the specialist are equally liable. It therefore behooves every physician and surgeon to arrange for protection against malpractice suits.

CORRESPONDENCE

DR. FRIEDMANN AND HIS CONSUMPTION CURE

SEA BREEZE, FLA., March 8, 1913.

My Dear Bulson:—In response to your request, received in Vienna, to write you my impression of Dr. Friedmann and his "cure" for tuberculosis I will try to give briefly what seems to me the essentials at this time, inasmuch as so much has been said, and irrelevant matters have misled some people, including medical men.

What I shall say is based on the essay of Dr. Friedmann and the discussion which followed in the Berlin Medical Society; what I learned from a large number of physicians, German and American, I met during my two months' vacation abroad; what I learned from Dr. Friedmann, his assistant, and his press agent, all of whom I met in Berlin and with whom I crossed the Atlantic, also from patients I saw at Friedmann's office, and others and their friends I visited in their hotels.

Dr. Friedmann, in an essay before the Berlin Medical Society, announced that he had discovered a non-virulent, intercellular bacillus derived from a turtle, which he injected into the muscle and a vein simultaneously, and that it *cured* all but hopeless cases. He stated that he had worked for fourteen years on this problem, but he gave no details as to the kind of experiments he had made. He gave brief histories of cases cured, but no percentages were given. In fact, the article is simply an announcement of the discovery and an entirely inadequate report of cases. He acknowledged to me that the report was insufficient and said he would give details later.

In the discussion which followed, six members testified that they had seen favorable results in some of Friedmann's cases, but nothing accurate was forthcoming. Only one of them is very well known, and all of them have been more or less interested with the doctor and share his enthusiasm. All other speakers differed from him. He has kept his discovery a secret, and he told me that no one but himself knew what he used, and that he had given it to no one—hence, all evidence must come from him.

Let us keep clearly in mind that we are now weighing evidence only and not get lost in theoretical speculations. I say this because a few doctors have allowed themselves to draw away from the point at issue. What the public and the medical profession want to know is, what proof is there that Dr. Friedmann has discovered

a cure for tuberculosis? The report referred to above, and verbal reports since, were all I could find. One need only look at them to see how far they fall short. In his paper he stated that he had treated a little over one thousand cases; in a footnote, when the paper was published two weeks later, he said it was nearly twelve hundred; on the ship he told me it was over two thousand, and to the New York newspaper reporters he placed the number between sixteen and eighteen hundred.

In regard to the percentage of cures he was equally indefinite. In his essay he claimed all but hopeless cases. I could never get him to make a definite statement, but he said it was "most remarkable," but to the reporters he placed it at 50 per cent.

It must be clear to every one, even if we give credit for the highest number, that in more than half of these the time of observation is but three months—far too short to make a positive statement as to results. Such indefinite reports must be due to the fact that he has not tabulated his cases, or that the histories are inaccurately kept. I do not like to speak of it, but I am compelled to say, from my observations at his office, that I think it is the latter. Every doctor, patient and their friends with whom I talked had remarked about the superficiality of the examinations, and that no history of temperature, pulse, or other symptoms were kept. These patients were in hotels, without supervision, and none of them had received any adequate directions about diet, exercise, or other things we all regard as essential.

Dr. Friedmann emphasizes this: If the exudate which always forms about the injection begins to absorb, the patient always improves. I saw five of these patients in which there was no improvement. I saw but two cases in which there was any evidence of the value of his remedy, and these were "show cases" I am sure. They had been well, he stated, for eighteen months or more, and I know they were exhibited to other American doctors at various times in the weeks preceding my visit. If they were cured, why should they return to the clinic so often? These were both claimed to be cases of tubercular bone, and even if we grant all that was claimed, it proves nothing, as many such recover. Professor Bier said that cases treated by Dr. Friedmann in his clinic showed no better results than others treated in the ordinary manner. Other patients I saw at his offices or met in their hotels were not, so far as I could see, benefited. In fact, I believe that in any clinic for consumptives one would see more improved cases.

Now you have all the evidence so far produced, what is the verdict? Most assuredly it must be, "Not Proven." Although we have entered a demurrer that there is no case, even if we accept the doctor's statements exactly as he gives them, it may not be amiss to state the attitude of the doctor who is the only witness.

Here is a man, and I am sorry to say that he is a member of our profession, who claims to have discovered the greatest boon to humanity. He keeps it a secret so that only those who can come to him may have it. He lives in Berlin where laboratory and clinical facilities are the best. The most competent of his colleagues have offered him every opportunity to test his remedy in a proper way. He has not availed himself of their offers, but has gone to the American press correspondents to test the highly technical scientific question. What they have said is well known, but I have it from the best authority that some of them would be glad if they could modify their reports. The German press has not noticed the discovery, the only item was the announcement that a wealthy American had offered a million dollars if the doctor would cure ninety-five of one hundred cases of consumption. So little is said about it in Berlin that I had some trouble locating Dr. Friedmann. At the hotel I found no one who had heard of him. From what I could see, the number of American patients had not been large, in spite of the glowing press reports. I do not know if this had anything to do with the spectacular invasion of our country, which has been so widely commented on in the newspapers, but I am quite sure that this was planned and the stage settings arranged by Friedmann's press agent, whose newspaper experience eminently fitted him for the undertaking. Just before they left Germany, Dr. Friedmann, in a spectacular manner, gave his "secret" to Professor Ehrlich, and, on his arrival here, is reported to have given it to the United States Marine Hospital Service. It will take them a long time, a year or more, to test it out, and in the meantime the doctor is the only one who has the remedy and the sole beneficiary of this extensive advertisement.

All this is interesting from a psychological point of view, but the "man in the street," is still asking for proof, and is further asking why he should not set Dr. Friedmann down as a man who has been weighed in the balance and found wanting.

Cordially yours,

EDWIN WALKER.

FEE-SPLITTING

FORT WAYNE, IND., March 4, 1913.

To the Editor:—Do you not think it is about time the public and the profession should know "who's who" in the profession in regard to the fee-splitting proposition?

There are those who, like the writer, think that the division of fees under whatever guise, secretly or openly, is, to say the least, undignified and unprofessional, and there are others who think that it is all right. Now in order that each member of the profession may know how his fellows stand on the question, I suggest that you take a vote through the columns of *THE JOURNAL* and announce the result, giving the name and address of each voter. To start the ball rolling I will now announce my vote for the "Anti-Fee-Splitters."

MILES F. PORTER.

[We shall be pleased to publish the names of all physicians in Indiana who desire to be enrolled on the list of "anti-fee-splitters" and will start the list with the name of our correspondent. It goes without saying that the names of the editors of *THE JOURNAL* will be added to the list.—Ed.]

SOCIETY PROCEEDINGS

FORT WAYNE MEDICAL SOCIETY

Meeting of November 5

Meeting postponed on account of presidential election.

G. VAN SWERINGEN, Secretary.

Meeting of November 12

Society met in regular session at St. Joseph Hospital with 24 members present. Minutes of previous meeting read and approved. Meeting in charge of Drs. McOscar and C. E. Barnett.

Dr. McOscar, Case 1. Female, 22 years of age; suffering from exophthalmic goiter for four years. Treated by injections of boiling water. Marked improvement. Not much decrease in size of gland; 200 mm. of boiling water was used at each injection. Aside from the immediate effects, i. e., the tachycardia and the nervousness diminished, has had no other effect following the injection except a slight degree of wry neck. Believes that if this case were freed from worry and had some rest in bed it would aid the treatment by this method.

Case 2. Male, aged 45 years, weighing 250 pounds, was coming down stairway. Both legs gave way at bottom of steps, and he fell forward. The tendons of both quadriceps extensor muscles were torn through above the patella. Operation for suture was done fifteen days ago. Has not as yet made any attempt to walk. Thinks the union is solid enough.

Discussion: Dr. Porter, Jr.: In connection with the thyroid case, injections into these glands do not dimin-

ish the size of the gland. Most of these cases complain of the pain in the sterno-mastoid muscle.

Dr. Weaver: The intention of hot water injection is not for the purpose of diminishing size of gland. The injection should be used in those cases which refuse operation or are too sick for operation. Most operators usually refuse to operate these tendon cases until the fourth day after injury. They wait for the clot to organize somewhat.

Dr. Barnett, Case 1. Male, 38 years of age; married; no children. Sixteen years ago received an injury to the epididymis by being bumped against a saddle. No tuberculosis in family. Has passed bloody urine for fourteen years. One year interval without blood. Has had pain in head of penis. Pain in one kidney region. Both epididymis and prostate contain tuberculous nodules. The vesicles are involved. The history of hematuria must be either tuberculosis, stone or carcinoma. May have slight blood from pyelitis, but broadly speaking, hematuria means tuberculosis. Cystoscopy reveals a left ureteral opening golf-holed. There is a pronounced inflammation of the bladder with several tuberculous ulcers. I think that the kidney is never infected by ascending inflammation, but its inflammation is hematogenous in nature. The treatment of prostatitis and vesiculitis of tuberculous nature is not operative. These cases are often followed by a fistula into the rectum. No tubercle have been found in the urine. This patient is being treated by autogenous vaccines and tuberculin. The bladder has been treated by dilatation and local applications. If left kidney is good, nephrectomy of right kidney will be advised.

Case 2. Specimen presented and case history read of unilateral polycystic kidney.

Discussion. Dr. Weaver: The diagnostic technic of kidney diseases has been enriched by pyelography. Had we injected one of the silver salts into this ureter the case could have been demonstrated nicely as one of ptosis of the kidney.

Motion carried that we reconsider motion of last week that the society give a dance and luncheon, and substitute an annual dinner for same.

Bill of Anger Flower Store of \$3, allowed.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of November 19

Society met in regular session in Assembly Room, with 24 members present.

Clinical cases. Dr. Porter presented case history of a case of tuberculous peritonitis resulting from a tuberculous appendicitis which failed to give a reaction to tuberculin.

Discussion: Dr. McOscar: I would like to ask how much we are to rely on tuberculin test as an evidence of the disease.

Dr. Bruggeman: The negative reaction of the tuberculin is due to the wide spread of the tuberculous disease. The reaction is noted in the mild cases and not in the severe cases.

Dr. Bulson: Tuberculin, so far as diseases of the eye are concerned, has not failed to give a reaction.

Dr. Weaver: Unfortunately this woman did not belong to the class of extensive disease such as Dr. Bruggeman means. She has some very suspicious chest signs, but they are not definite. In the last

number of the Murphy clinics there are mentioned three cases of tuberculosis of the bowel in which no reaction followed a subcutaneous injection of tuberculin.

Dr. Porter, Jr.: A patient on the road to improvement from some trivial illness gave no tuberculin reaction. He returned in a few weeks with a specimen of sputum loaded with tubercle. It is possible that this disease is widespread.

Dr. Porter: This patient may have a greater tuberculous disease than we think. No other inflammation of the peritoneum was apparent.

Dr. B. Van Sweringen reported a case of gunshot injury of the right thorax, followed immediately by hemothorax. Showed no great shock. Pulse 100. Temperature normal. No signs of hemorrhage. Attempted to get x-ray of chest and failed. No shadow obtainable. Patient was allowed to go two or three days because the tension was thought to control hemorrhage. Rib resected. Chest cavity emptied of several pints of fluid blood. Packed with gauze. Drainage good. Drain removed at end of four days. Some improvement of the expansion of the lung. Is now having some sepsis which is indicated by a temperature and increase of pulse rate.

Dr. McCaskey: Would like to mention a couple of cases which illustrate the point that the diagnosis of major neuroses should be made with caution. A female suffering from supposed dementia went to visit her brother. A railroad accident occurred in which a boy was killed. The patient became violently insane. On careful examination of the urine it was found that a chronic nephritis was present. The patient is now dying of a Bright's disease. There might be some question if the mania in this case was not due alone to uremia.

Dr. Rothschild: Cases that have all the ear marks of tuberculosis will sometimes be found to be specific.

The Serum Treatment of Syphilis, was the title of a paper read by Dr. B. W. Rhamy.

Discussion: Dr. McCaskey: There is not an organ or tissue of the body which cannot be infected with syphilis. The *Spirocheta pallida* is surely the cause of syphilis. The Wassermann reaction while not specific of syphilis, nevertheless is sufficiently reliable to be at least strongly suggestive of the disease. The most serious indictment against the Wassermann reaction is that you may find the reaction present in tumors of the brain and cord which are not specific in nature.

Dr. Bulson: Would like to ask what effect treatment has on the result of microscopic examination for spirocheta, and producing a negative Wassermann.

Dr. Bruggeman: It is Wassermann's ambition to have a modified test that can be used by the general practitioner. As it is now, it is work for the laboratory expert. We should use the alcoholic extract of the organs of syphilitic cases, as Wassermann's assistant has suggested. Injection of salvarsan will sometimes accentuate a Wassermann reaction which in a few weeks will become less marked. Calomel or mercury salicylate will produce a negative Wassermann which will become positive later. I think the best stain for routine work in the examination for spirocheta is India ink.

Dr. Rothschild: In genital primary lesions we should be very careful to get the deeper serum of the sore for examination for spirocheta.

Dr. Rhamy, closing: Most cases of brain tumor would not give a positive Wassermann reaction. In regard to treatment, with results of microscopic examination of specimens and the Wassermann, if it has been very active it renders it hard to find the spirocheta, and it modifies the Wassermann reaction.

Dr. Hetrick's death was announced and motion carried that a committee be appointed to draft resolutions and report at subsequent meeting. President appointed Drs. McCaskey, Wheelock and B. Van Sweringen.

Motion carried that secretary send flowers.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of November 28

The annual dinner was held at the Elks' Club, with 55 members and their wives present. The dinner was followed by a program of toasts and an enjoyable social hour.

INDIANAPOLIS MEDICAL SOCIETY

Meeting of February 4

Society called to order by Dr. John Pfaff. Number present sixty. Dr. W. N. Wishard reported for the committee on legislation in reference to House Bill No. 277, "A Bill for Regulating and Controlling the Sale of Habit Forming Drugs." This bill was left in the hands of the committee for further consideration.

The following members were elected to membership: Wm. F. Baker, Walter F. Kelly, Burt R. Rickards, Chas. Wm. McClintock, Charles M. Cain, John W. Emhardt and B. S. Potter.

Dr. S. J. Young offered resolution:

Resolved, That the Indianapolis Medical Society heartily approve all proper efforts to restrict the sale and use of habit forming drugs and will earnestly support any legislation for this purpose providing it does not interfere with the exercise of the best judgment of the members of the medical profession in the relief of disease. This resolution was duly adopted.

Dr. Wilson moved the indorsement of Senate Bill No. 172, "A Bill for the Establishment of a State Hospital for the Detention and Care of Inebriates."

Dr. Keene objected to indorsing any bill that had not been read before the society or investigated by the committee on legislation. The bill was referred to committee on legislation for consideration.

Dr. Potter presented an amendment to Article 5 of the constitution of the society, "to provide for the election of a second vice-president in addition to one as is now specified, and to state the order of procedure.

Case reports made up the programme of the evening. First case reported was by O. G. Pfaff, "Vaginal Enterocoele Treated Surgically." Patient, woman, aged 66, mother of several children; had suffered pelvic distress for 35 years. Operation recommended by family physician fourteen years ago. Operation at that time not done. Condition grew progressively worse. Examination two weeks ago showed large enterocoele, projected behind the uterus so large that vagina was turned inside out producing complete prolapsus of uterus. Photographic illustration shown. Patient of enormous size. Average height but weighed 280 pounds, 4 feet 6 inches around the hips, calves 24 inches, bust and waist measurements each 4 feet. Abdominal wall exceedingly pendulous and abdominal operation to be avoided if possible. Operation, "Vaginal hys-

terectomy," then a longitudinal incision from the posterior commissure through sac. Sac filled with omentum and bowel with very dense adhesions. Adhesions broken up and viscera replaced into abdominal cavity where they were held with difficulty by large pads. Next a wide bilateral excision of sac was made, stumps of broad ligaments sewed together, wound closed with interrupted chromic catgut and perineal repair made by dissecting out levator muscles and pelvic fascia which were united to a point about half an inch below meatus. After three weeks, good union throughout and patient well enough to be removed from hospital.

CASE 2.—Dr. S. E. Earp reported a case in which an unknown man was brought to the hospital in a comatose condition and without a history. A diagnosis of uremia and chronic interstitial nephritis was made but the pathological condition of the chest was indefinite. The patient died three hours later without returning to consciousness. The autopsy findings were a right inguinal hernia, adhesive pleurisy, pneumonic consolidation of right lung, and left lung showed areas of healed tuberculosis. There were arterio-sclerotic spots on mitral valves together with "chicken fat and current jelly" clots, atheromatous spots at mouth of arch of aorta as well as on abdominal aorta. Exostoses of bodies of dorsal vertebrae projecting one-half an inch. Right kidney was surrounded by a large quantity of perinephritic fat and organ was sclerotic. Chronic interstitial nephritis, left kidney abnormally large and there was a stone forming a complete mold of pelvis and calices; liver showed fatty degeneration; bladder was ribbed and contained six stones one-half inch in diameter and a larger one, 1½ inches in diameter, which had projections resembling stone found in kidney. Case shows that men sometimes live and work when there is comparatively only a minimum amount of machinery to favor existence.

CASE 3.—Dr. W. D. Hoskins reported a series of fifteen intubations for year 1912. He called attention to the fact that death-rate from diphtheria is not proportionate to number of cases. Cases of laryngeal diphtheria are relatively more frequent when diphtheria is not epidemic. Owing to absence of glandular tissue in larynx, antitoxin does not give prompt relief in laryngeal diphtheria that it does in nasal and tonsillar cases. Inasmuch as the physician is frequently not called until child has been ill several days and suffocation is threatened, intubation frequently has to be resorted to, to save life. If operation is not unduly delayed mortality is low—20 per cent. in this series. Fatalities are more often due to a subsequent pneumonia than to toxemia from diphtheria. No detailed description of cases was attempted but some points of interest were pointed out and series was thought to warrant following summary:

1. Any child that is hoarse or croupy is sufficiently ill to need attention of physician.

2. Only safe way to regard croup is to see in every case possibility of diphtheria, to isolate it and take cultures.

3. Any case of croup that is continuous and progressive is probably not simple catarrhal croup but diphtheria and should be given antitoxin.

4. In any case of hoarseness and sufficient difficulty in breathing to cause restlessness, anxiety or evident distress, intubation should be performed early. It is folly to wait for signs of impending death.

5. Early recognition of these croup cases with prompt use of antitoxin, and timely intubation will reduce death-rate from 95 per cent. to 25 per cent. or less.

Dr. G. B. Jackson reported two cases: first, gonococic septic abortion, pyemic in type, treated with vaccine therapy.

CASE 1.—Self-induced abortion by introduction of hairpin. Six days later chill and high fever; pulse correspondingly high. Womb emptied. Fourth day after operation, chill and fever, this recurring regularly every day between 10 and 12 a. m. and becoming normal by 9 or 10 p. m., thus simulating double tertian malaria. After seven such days culture and smear from within the uterus were taken. *Gonococcus* found. Thirty million dose of gonococic vaccine administered. Specific result noted. Thirty-six hours later dose was repeated, on strength of negative culture report by state board on a smear in which there were gonococci present. After the injection temperature normal—fever never recurring.

CASE 2.—Cesarean section for placenta praevia in primipara. Patient almost exsanguinated during operation by hemorrhage per vagina unnoticed in the field of operation. Checked by intra-uterine pack. Two days after operation acute dilatation of stomach relieved by lavage. On fourth day, toxemia with temperature 103.8; pulse 138 and almost imperceptible. This relieved immediately by intra-uterine douche, bringing away retained purulent lochia. Slow but uneventful recovery.

DISCUSSION

Dr. Keene: Diphtheria mortality reports not always accurate. Reports of high death-rates are due to small number of cases reported.

Dr. T. B. Noble: Dr. Pfaff's case. Women from 40 to 70 years of age bear operation well. Recommends vaginal route for all such cases. Gave his own technic in such operations. Vaginal route is simple and easy and good results are easily secured.

Dr. Young commended Dr. Pfaff's case report. Discussed blood-pressure in reference to Dr. Earp's report. On Dr. Jackson's case, gonococic infections run mild course as a rule.

Adjourned.

A. E. GUEDEL, Sec.

Meeting of February 18

Meeting called to order by vice president. John A. Pfaff. Number present, seventy-five.

Dr. A. W. Brayton moved that the papers and discussion at the last meeting be expunged from the society records. Carried.

Application of Arran Sheridan read second time.

Dr. McKinstray presented an amendment to Section 7 of Chapter 1 of the by-laws, to the effect that any division of fee between consultant and physician having referred a case be construed as gross misconduct and that, after investigation, the guilty parties be dropped from society.

The society voted that all amendments now before society be printed and mailed to the members of society at the same time.

Dr. Potter discussed the bill now before the legislature on the regulation of the automobile tail light. On his motion a committee, consisting of Drs. Potter, Clark and Henry, was appointed with power to act.

Dr. Wishard called attention to the bill to provide a special state board of examiners for chiropractors, and urged the appointment of a special committee to

assist in fighting the bill. The chair appointed Drs. Kimberlin, Dugan, Strickland, Young and Wagner.

Dr. Noble called attention to order issued by society some time ago to secretary to purchase silent chairs and a runner of carpet for floor of meeting room. Secretary reported that for financial reasons order had not been carried out. Dr. Noble requested a financial statement of secretary. The society has at present a balance in treasury of \$384.39. Secretary was instructed to investigate matter further.

The first paper of the evening was read by Dr. C. C. Haskell. Subject, "Relative Values of Various Sugars in Feeding Infants."

Opinions of pediatricists differ as to most desirable carbohydrate for use in feeding of infants. Some contend that lactose should be employed, urging that it is the sugar present in infants' natural food and the one best suited to maintain nursing's normal intestinal flora. Others, on the contrary, contend that maltose dextrin mixtures are much less apt to give rise to irritant decomposition products with resultant diarrhea; and are more readily split up into assimilable dextrose involving expenditure of less energy in process of metabolism. According to opinion of first group, intestinal bacteria play a most important role, while other investigators attach but little importance to the preponderance of one or another form of non-pathogenic bacteria within intestine.

The attempt was made by dividing sick or convalescent infants into groups and feeding each group on a different sugar, to determine whether any one form of sugar possessed decided advantages over others. So far as investigation has proceeded, it seems that malt soup, extract produces better results than either lactose or dextrimaltose. This may be due to the relatively high maltose content, to the sweet taste or to presence of enzymes.

DISCUSSION

Milk sugar is considered the practical sugar in the usual case because it is not contrary to nature. Malt sugar is more absorptive and causes an increase in weight. It is indicated especially in marasmus. Malt sugar being less fermentative is a better food in winter. While malt sugar is often indicated in sick infant, lactose is usually more applicable in normal cases.

Dr. Haskell (closing): The point in selection of a sugar is one of close discrimination. It is impossible to get any definite conclusions because of extreme difference of opinion on subject.

Owing to the fact that much time was consumed in the earlier part of the evening in the discussion of society business there was not time for the presentation of Dr. Egart's paper to finish program. Dr. Egart requested that he be permitted to read his paper at a later date.

Adjourned.

A. E. GUEDEL, Sec.

Meeting of February 25

Meeting called to order by the vice president. Fifty-five present. Minutes of the last meeting read and adopted. Drs. Sheridan, McMillan and L. F. Robinson elected to membership.

Dr. W. N. Wishard discussed for the legislative committee, the chiropractic bill and urged society to further assistance in fighting the measure.

The paper of the evening was read by Dr. C. S. Woods. Subject, "Chemotherapy."

A substance to be acceptable as a chemotherapeutic agent must, when introduced into blood-stream act

specifically on microorganism in case of infectious diseases without damaging normal tissue cells. In the case of cancer the substance when introduced into blood must exert its influence on pathological cells and not normal cells. In infectious diseases it must be parasitotrophic and in case of cancer, organotrophic. Accidental discovery of specific chemotherapeutic remedies improbable.

In trypanosome diseases the problem is comparatively simple as compared for example to tuberculosis, because tuberculosis organism is hidden in tissues and more inaccessible to the remedy, and in addition to this it is one of the oldest of organisms and has developed an adaptability to many unfavorable conditions.

Substances do not act *in vitro* as they do *in vivo*. Atoxyl is not trypanocidal in test-tube. A specific cure for tuberculosis will probably be found to be a substance which when introduced into the blood-stream will destroy the tubercle bacilli or so modify the soil on which the bacillus grows that normal protective forces will again become dominant and recovery will follow.

A brief epitome of chemotherapy may be stated as follows: Malaria, syphilis, trypanosome disease, and amebic dysentery have all responded remarkably to chemotherapy. The outlook for chemotherapeutic cure of tuberculosis and other microbial diseases is exceedingly good. Also prospects of a cure for cancer are encouraging. A specific treatment for typhoid fever and septicemia is sure to be found.

DISCUSSION

Dr. C. R. Schaefer: Chemotherapy is the new sun on the horizon of medicine. Disease does damage through its toxins and purpose of chemotherapy is to apply proper substance when it can be found to neutralize these toxins. The chemical agent must be parasitotrophic and not organotrophic. Test-tube reaction cannot be compared to reaction in human body. Tissues after a while become tolerant to any one chemical and these substances act with less power than at first. A recurrence of a disease or a condition that formerly had been treated chemically should for the reason of tissue tolerance, if possible be treated the second time with a chemical agent of a different nature. Bacteria become tolerant to antiseptics and the properly educated organism may look with pleasure on a bath in the ordinary antiseptic solution.

Chemicals produce tumors and chemicals will likewise reduce them. It is probable that in the old treatment of cancer by copper electrode that favorable results were due to formation of colloidal copper in body tissue.

Dr. Alburger: We can refer back to our history of development.

First we considered "disease of man;" second, then we took up disease of organs; third, we considered disease of cells; and now we come to consideration of disease of molecule. In therapeutics that we have been practicing for years there has been little of specific action secured. Cells have been stimulated or they have been depressed, but other responses have been rare. We can assist cells in their specific combat against an organism by use of vaccines, etc., our idea in chemotherapy is to get substances that will fight for the cell instead of simply urging the cell to its own battle. Mouse cancer is not human cancer, and I do not believe that we should accept too much as final and conclusive from the many mouse tumor experiments now being carried on. In all probability we

cannot expect same action of chemicals on human cancer that we get on mouse cancer. Bacterial organisms are very illusive and after a while they develop an immunity to antiseptic drugs.

Dr. Wynn expressed his appreciation of Dr. Wood's paper and the newer things that it brings before us. Chemotherapy has great future because it is the scientific therapy.

Dr. Brayton: Dr. Wood's paper should be a stimulus to us to broaden scope of our reading. We do not read enough outside of our specialties. We are too easily satisfied with what we have done.

Adjourned.

A. E. GUEDEL, Sec.

ADAMS COUNTY

The Adams County Medical Society met in regular session in the office of Dr. S. D. Beavers, Decatur, with ten members present.

Dr. B. W. Rhamy, of Fort Wayne, read an excellent paper on "Immuno-Therapy."

The society passed a resolution to the effect that its members would refuse to call in consultation or refer any case to any physician generally known to be practicing advertising or quack methods.

Adjourned.

C. C. RAYL, Secretary.

DELAWARE COUNTY

The Delaware County Medical Society met February 7. The topic for the day was "Moral and Physical Prophylaxis," and Rev. Edw. G. Mason, D.D., pastor of the First Universalist Church, addressed the members of the society on the subject, "The Physician as a Minister." In part Rev. Mason said that in comparing social and economic conditions of the past with those of modern times, a steady advancement is evident, and greater interest is shown by the individual in the interests of the race as a whole. Physician and Christian minister have always led in fight for better things, and have been first to recognize that our obligations reach to the extent of our ability to act in the amelioration of the ills to which mankind is heir. Great duty is laid upon the physician for he, above all others, is in a position to be of use to the community. The physician, like the true minister, should feel that he is called and consecrated to an unselfish service. The true medical man acts contrary to his own professional and financial interests by preaching sanitation, hygiene and right living, and by placing within reach of the public information that tends to minimize its degree of dependence on the physician. To the doctor of medicine rather than to the minister of the Gospel belongs the duty of revealing the secrets of life to the young and ignorant, and his success depends on his ability to reach the heart. More concerted effort should be used to eradicate the quack and the pretender who prey on the afflicted, hopeless and helpless; who blatantly promise the incurable a cure.

The family physician should be a man who loves his work and who lives for his work and the good that work may accomplish. Mercenary practitioners should be professionally and socially ostracized. A system or code of ethics should never stand in the way of right doing, and no physician should be a materialist. He should be able to lead people into the understanding that one thing that makes the body sacred is that it is God's handiwork, the home of the soul. The

physician's attitude toward society should be one of continual incentive toward progress and reform; toward eradication of vice, both secret and legalized. Ministration to human ills is a sacred one, and the "black sheep" in the profession is just as reprehensible as the hypocrite behind the pulpit.

In closing, Rev. Mason quoted Anne McQueen's tribute to *The Surgeon*.

"As high priest, teaching an acolyte,
He watches over each holy rite,
The flame and water to make them clean—
Body, and garment, and weapons keen—
With sacred care for a sacred strife;
To rout a foe in the House of Life!
For blade and body must both be pure,
And hand be steady and eye be sure,
And weapons purged in the fiery glow,
Whenever he wars against the foe.

"With joy of battle his soul is rife,
Behold! He enters the House of Life!
His flashing blade, it is dripping red—
He follows fast where the trail has led,
To the sacred shrine with ruby throne
Where Life has fought with the foe alone,
As the high priest's hand may lift the Veil,
He boldly enters the holy pale;
His hand is steady, his weapon bright—
The foe is vanquished and put to flight!
And Life awakens, with anguished breath;
For Man has grappled and beaten—Death!"

In opening the discussion, Dr. Geo. R. Green paid a warm tribute to physicians in general and to the members of the Delaware County Medical Society in particular. Drs. Kemper, Spurgeon, Fisher, Williams, Margin, Wadsworth and others also took part in the discussion.

Adjourned.

H. D. FAIR, Secretary.

ELKHART COUNTY

The 35th annual meeting of the Elkhart County Medical Society met in the Century Club, Elkhart, February 6, at 2 p. m.

Dr. Halstead, of Chicago, read a paper on "Pathogenesis and Surgical Treatment of Increased Intracranial Pressure." In part Dr. Halstead said that there are three conditions which cause increased intracranial pressure: 1. Diminished size of skull, premature closing of sutures; 2. Diminished skull capacity, internal concentric diffuse hyperostosis; 3. Increase in volume of contents of skull due to different diseases.

Symptoms of increased pressure, headache most constant; vomiting (one half of cases); vertigo and nystagmus; psychic symptoms, dementia late; generalized convulsions (of real value pointing to brain as locus); optic neuritis and choked disc, pathogenesis a mooted question. Mechanical theory obtains but is losing ground; optic neuritis and choked disc different only in degree. (Casey Wood's articles on subject.) Whether inflammatory or not is not known. A surgeon is always asked as to whether patient will recover from the blindness after operation, and it is impossible to foretell. Time for operation is at beginning of loss of vision. One reason for confusion is lack of proper terminology. Fundus changes not always observed from beginning to end by same physi-

cians. If ophthalmoscope were in general use more progress could be made; bradycardia sign of increased intracranial pressure; found in acute cases, may vary greatly. Depression and paralysis of seat of respiration; may lead to death before tumor is suspected; acute edema of brain; x-ray, most important. In generalized erosion of calvarium, in absence of clinical symptoms, there is or has been increased intracranial pressure. Dr. Arthur Schiller first called attention to this. In St. Luke's Hospital every skull is x-rayed. X-ray will show cranial stenosis and enlargement of sella turcica. Has patient at present with very large sella. Internal exostoses; calcification of brain. When pineal gland is displaced, location of tumor may be determined on opposite side.

Diagnosis and location: A hyperostosis may occur just over tumor; may be erosion of bone. It is possible to make diagnosis of abscess by erosion of bone; case cited.

Treatment belongs to surgeon. Spinal puncture may be done by medical man. No medicinal or palliative treatment is of any importance.

Operations: 1. Subtemporal decompression of Cushing, recommended for hydrocephalus. Rolandic area involved. 2. Suboccipital decompression for tumors below tentorium. Puncture of fourth ventricle for hydrocephalus or for cysts. Dr. Halstead does decompression first, then three or four weeks later finishes operation. Blood-pressure may be reduced from 145 to 45 mm. hg. and operation must stop before danger point is reached. 3. Sella decompression; Halstead operation, area is reached by raising upper lip and working straight back. Arthur Schiller's operation of puncturing third ventricle liable to cause sudden death by hernia of brain. This must be avoided also in decompression operations. Operation is indicated in traumatic cases of skull fracture. In genuine epilepsy decompression is done over epileptic centers, if known; brain puncture for internal hydrocephalus, operation into lateral ventricle may be followed by insertion of permanent drain, a small tube or silkworm gut which fastens to dura. Cushing showed danger of hernia of cerebellum through foramen magnum. Permanent drainage in spinal procedure is more dangerous. Dr. Halstead never uses it.

Discussion. Dr. G. W. Spohn, Elkhart: His observation is that most cases die. Into what part of brain is puncture done? Choked disc alone not of importance; may come from abscess of ethmoid. Any mechanical pressure of optic nerve gives choked disc; infections important. Cushing says large doses of atropine give relief. Cranial flap ought to give some relief. Saw case of increased intracranial pressure in child in Chicago Hospital; sinus thrombosis; high blood-pressure. In what percentage of cases does Dr. Halstead restore them to normal?

Dr. J. C. Fleming, Elkhart: Will not a flap operation give temporary relief in cases of cerebral syphilis? Is decompression justifiable in eclampsia? What procedure in cases where fontanelles have failed to close? Is use of mercurial manometer of any value?

Dr. E. J. Lent, South Bend: In fulminating case of nephritis prognosis depends on early time of operation and whether purely edema or inflammatory. His experience limited to two or three cases of tumor. One came to post-mortem and showed tumor resting on petrous portion of temporal bone.

Dr. C. W. Haywood, Elkhart: Recalls article by Braun in *Journal of A. M. A.*, describing case in which

a broad opening between third ventricle and subdural space was made; mentality improved. What relation between size or location of sella and diseased condition of hypophysis?

Dr. C. A. Stolz, South Bend: All cases observed by him were fatal. Border line work. Permanent drainage in brain or spinal cord does not appeal to him. Is restoration of bone flap an important procedure? Had Fourth of July case of gas-pipe run through frontal eminence. Removed bone and left without flap. Patient died from other causes several years later and came to post-mortem. Bone showed very good restoration.

Dr. C. F. Fleming, Elkhart: What are the indications for operation in epilepsy?

Dr. Halstead, closing: Brain surgery an unpromising field, but if one case a year is saved it is worth while. Impossible to relieve headache and restore eyesight by operation. Reported one case, however, in which man recovered so that he could attend to business. Fenger, pioneer brain surgeon in this country, used to do punctures. Two cases died immediately from brain puncture. Broca investigated and found it due to edema of brain. Lateral ventricles would have to be punctured. Permanent drains in hydrocephalus not advisable. Dr. Halstead would not consider brain operation in Bright's disease. In syphilis and tuberculosis decompression will place patient in position to recover by relieving pressure; two-step operation gives patient and surgeon better chance; always does it in work on superior fossa. Extreme shock in posterior operation. Does not replace bone flap in children nor in cases of increased intracranial pressure. No reason for restoring deformities of skull where there are no symptoms. Makes dural flap opposite bone flap. In fractures at base of brain patient usually dies from injury to brain, not from hemorrhage. Does not operate in fractures at base of skull. Best men support mechanical theory of choked disc.

Dr. M. Milton Portiss, of Chicago, read a paper on "Hyperchlorhydria." Meat diet contra-indicated; vegetable less irritating. Based on experiments on dogs, Dr. Portiss has prepared following table:

| | Time in Stomach Hr. Min. | Am't of Secre- tion, c.c. |
|---|--------------------------------|---------------------------------|
| 250 c.c. potato | 1:30 | 12 |
| 250 c.c. spinach | 1:40 | 15 |
| 250 c.c. carrots | 1:25 | 14 |
| 250 c.c. milk | 2:10 | 15 |
| 1 lb. meat (finely divided) | 4:15 | 32 |
| 1 lb. meat (in chunks) | 7:30 | 63 |
| 1 lb. meat (in chunks) plus Hyoscin-Hydrobromid | 6:30 | 52 |
| 1 lb. meat (in chunks) plus Morphine gr. 1/2 | 7:00 | 56 |
| 1 lb. meat (in chunks) plus Atropin gr. 1/50 | 4:20 | 25 |
| 1 lb. meat (in chunks) plus Strontium Bromid. 15 g. | 4:15 | 27 |
| 1 lb. meat (in chunks) plus Strontium Bromid. 30 gr. | 3:30 | 17 |

These experiments bear out findings of Pawlow; same readings for acid. Studies of Bickel on human beings (girl with esophageal fistula; ate food which dropped out of fistula and gastric secretion was studied from opening in stomach), bear out Pawlow's and Portiss' findings. Acidity is two or three times what

it was supposed to be. Hyperchlorhydria a misnomer. Accustomed to call as normal 40 to 60 in terms of decinormal sodium hydroxid. Problem is to control actual amount of HCl secreted. Variation in percentage depends on, 1, quantity of HCl secreted; 2, motor power of stomach and 3, neutralizing power of mucus. Hyperchlorhydria is a quantitative proposition.

Effort in treatment to be directed not toward binding and neutralizing acid but to diminishing amount secreted. Foods should be finely ground or crushed. Vegetable purée is ideal made with water or milk, not with meats. Milk, cream, egg albumin, butter and stewed fruit. Only when hypersecretion is under control should meat be allowed.

The reflex to check secretion in stomach occurs in duodenum. Alkalies given a half hour before meals, sod. bicarb., calcined magnesias, and best of all neutralon, which is an aluminum salicylate, does not produce gas, is not laxative in effect, forms aluminum chlorid and salicylic acid. Chlorid of aluminum is astringent and decreases time of acidity. Oils and fats serviceable. Best results by giving olive oil twenty minutes before meals. Discard hyoscin and opium. Atropin and strontium bromid a half hour before meals are best. Drinks, water, milk, weak tea and cocoa. Coffee, strong tea, carbonated drinks and alcohol are harmful.

Treat ulcer ventriculi, ulcer duodeni, arteriosclerosis, tabes dorsalis, neuroses and organic nerve conditions as they should be treated aside from treatment for accompanying hyperchlorhydria.

Discussion. Dr. G. W. McCaskey, Fort Wayne: Problem is to limit quantity of secretion. Do it from dietetic point of view; bland diet is proper. Not rational to put into stomach something which increases quantity of HCl. Must influence causes. Nervous system important from viewpoint of stomach diseases. Place patient at rest. Uses bismuth subgallate for astringent action.

Dr. H. M. Miller, South Bend: Most of this class of patients are meat eaters; they crave meat; must be cut out of dietary; bland diet best. Atropin very satisfactory especially when given late at night. Magnesium and bismuth also used.

Dr. J. C. Fleming, Elkhart: Is interval of feeding important? Asked relation of hyperchlorhydria to ulcer especially as to diagnosis.

Dr. J. A. Work, Jr., Elkhart: Hyperchlorhydria a symptom of three very important organic diseases: 1, gastric or duodenal ulcer; 2, gall-stones or other gall-bladder disease, and 3, chronic appendicitis. Neurasthenia or neurosis is a bad diagnosis unless it has been absolutely proven that patient has no organic abdominal disease. Has obtained splendid results from following treatment: 1/100 grain atrophin sulph. a half hour before meals; 1 dram bismuth subgallate 1 hour before breakfast and 1 dram of light calcined magnesias 1 1/2 or 2 hours after meals. Recommends bland meatless diet.

Dr. C. C. Terry, South Bend: Hyperchlorhydria not due to stomach conditions but to gall-stones, chronic appendicitis and ulcer. Medicines only palliative. Operation relieves permanently. Hyperacidity only a symptom.

Dr. Portiss, closing: This condition is found in chlorotic girls and cases of habitual constipation. Hyperchlorhydria a quantitative condition, not qualitative. Interval of feeding, duodenal or rectal ali-

mentation given three times a day with milk and cream between meals. Deprecates and severely criticizes Weinstein's ambulatory treatment of gastric or duodenal ulcer. Ulcer a serious condition.

Dr. L. W. Bremmerman, of Chicago, read a paper on "Renal Tuberculosis." Surgery and pathology of tuberculous kidney go hand in hand; one of the most troublesome affections of genito-urinary tract; mortality following surgical treatment high. More close observation would get earlier diagnosis which is important. Tuberculosis of genito-urinary organs secondary to tuberculous disease elsewhere. Tubercle bacilli may be found in urine without disease of kidney. Koch's bacillus is not pyogenic in case of pyuria; always mixed infection. Small grayish nodules are found in kidney; if both sides are involved, one is worse than the other.

Symptomatology: Polyuria, increased frequency, loss of appetite and of weight, renal colic due to passage of debris or blood-clots, bleeding due to destructive process. Tubercle bacilli are more frequently found in pyuria cases than in others.

Diagnosis: History of case, physical examination, cystoscopy and catheterization of ureters and finding of t. b. Latter difficult. Be thorough and examine several slides. Compute functional capacity of kidneys. Tuberculin reactions are not satisfactory. Cystoscopy may have to be done under anesthesia as bladder is very tender. Between calculus and tuberculosis, x-ray may help in the diagnosis. Ordinary suppuration of kidney is harder to differentiate. Guinea-pig inoculation is frequently absolutely essential.

Treatment: Only treatment is surgical. Very rare for a case to clear up under medical care. One case recovered only to show disease of other kidney nine months later. Tuberculin has failed to bring good result without operation, though it may be used subsequently. Tuberculin seems to stimulate growth of bacilli in kidney. After nephrectomy this is obviated. Autogenous vaccines far more efficacious than stock vaccines. Bladder tuberculosis will not get well following nephrectomy without tuberculin treatment.

Discussion: Dr. C. E. Barnett, Fort Wayne: Majority of all people have at some time had tuberculosis. Halstead estimates tuberculosis in 70 per cent. of children. Most authorities believed the infection hematogenous; now think it lymphogenous. Never infection by continuity, and rarely bladder tuberculosis; less frequently in female. More symptoms referable to well side on account of more work thrown on well side. Temperature nil. Heredity cuts no figure. Advised mixed vaccine. Thinks rural practitioner should prepare his own vaccine in lysol medium. This is becoming more general. Urologist has to decide which side to operate. Zuckermandl opened both sides, to see whether other kidney is good; do this if cystoscopy is impossible. Functional test of Geraghty and Rowntree advised. Believes in operative treatment of tuberculous kidney.

Dr. A. C. Yoder, Goshen: Showed cuts of tuberculous kidneys; emphasized early diagnosis instead of giving g. u. antiseptics, etc. Sterile pus is strongly in favor of tuberculous kidney. Mentioned indigo-carmin test and cryoscopy as means for testing functional ability of kidney.

Dr. Halstead, Chicago: Reported cases which recovered under tuberculin treatment and broadly hygienic conditions of living. Partial resection of kidney. Short-

cut method. Rarely tuberculosis of ureter or seminal vesicles.

Dr. McCaskey, Fort Wayne: Discussed question from standpoint of internist. Albarran's polyuria test shows diseased kidney to be working harder than the normal. Impaction of stone in one kidney inhibits the other. Glad to hear Dr. Halstead report three cases of healed tuberculous kidney.

Dr. J. C. Fleming, Elkhart: Holtz reports that of 615 cases only 30 were living at the end of 12 years. Diagnosis is made in only 30 per cent. of cases which come to autopsy.

Dr. Bremmerman, Chicago: Healed tubercles are not found post mortem. Cited case of healing tuberculous kidney which developed abscess of Cowper's gland. Opened and drained. Katzenjammer's phloridzin test. Estimation of functional capacity of kidney very important.

After a complimentary dinner in Century Club Café the evening session convened in the auditorium. Prof. G. W. McCaskey, of the Indiana University School of Medicine, delivered a semi-popular lecture on "The Problems of Modern Medicine."

Adjourned.

JAMES A. WORK, JR., Secretary.

GRANT COUNTY

The regular meeting of the Grant County Medical Society was held February 25.

The paper of the evening was read by Dr. J. M. Toney, who made a plea for better union and good fellowship.

After discussing the paper, the members responded briefly to the subject, "The most interesting case the past month."

Adjourned.

G. R. DANIELS, Secretary.

JEFFERSON COUNTY

The regular meeting of the Jefferson County Medical Society was held February 12, with nine members present.

Dr. Carl Henning presented a patient with an atypical case of epilepsy, of about 2 years' standing. Usual remedies tried but had very little effect, and patient is becoming rapidly worse both physically and mentally. Asked suggestions as to treatment. General discussion.

Dr. Fred H. Austin gave a short talk on the subject, "Our Common Mistakes." Discussion.

Adjourned.

FRED C. DENNY, Secretary.

KNOX COUNTY

The Knox County Medical Society met February 21, with sixteen members present.

Motion carried that the state senator from Knox County be requested to use his efforts for the passing of the Senate Bill providing for a state hospital for inebriates.

Dr. E. P. Bowers presented a paper on the subject, "Surgery of Tuberculosis of the Bone." The author said that tuberculosis is responsible for some forms of metastatic rheumatism. Diagnosis of joint tuberculosis offers many difficulties, although the set of symptoms is somewhat uniform, varying only with anatomy of joint, i. e., impairment of general conditions, elevation of temperature, steady muscular contraction, early

atrophy of muscles and bone, retardation of growth, sluggish and semi-fluctuating swelling, distorted positions of affected parts, abscess formation, joint deformity, pain and tenderness. Close attention to this line of symptoms, the sero-reactions and a good family history should lead to an early and correct diagnosis. The tendency of the disease, if unlimited, is to end in ankylosis and general deformity. The chief aim of mechanical treatment is to diminish traumatism to affected joint, protection from weight bearing and traction to separate joint surfaces. Intra-articular tension may be relieved by incision or aspiration. A tubercular joint should never be opened and drained, for no matter how carefully it is dressed, in time it will become infected with pyogenic organisms. If opened, an abscess cavity should be carefully wiped and cleansed and closed promptly. Arthrectomy is chiefly advocated in children to save epiphyseal lines; ankylosis end result. Injection of formalin and glycerin solution used extensively in treatment. Some surgeons are now advocating weight bearing in hip diseases. The plaster cast is perhaps the most used mechanical appliance.

Dr. J. P. Ramsey read a paper on "Surgery of Osteomyelitis and Syphilitic Lesions of the Bones," in which he said that osteomyelitis is a suppurative inflammation of bone; is five times more common in lower extremities than in upper. Early recognition and free exit of pus are essentials in proper treatment of acute forms. Treatment of chronic form consists of, (1) Removal of diseased bone; (2) Saving as much of periosteum as possible; (3) Avoid formation of irregular cavities. At first pain, and later abscess and chronic suppuration are the symptoms which bring patient to the physician. The pus burrows its way toward outside and the surgeon attempts to assist Nature in process of relief by making free opening for removal of all diseased bone possible, and placing diseased parts in best position for healing. Many cases of chronic osteomyelitis have been operated upon several times with the result in most cases of a chronic suppurative cavity discharging from one or more fistulae. To avoid this open cavity in the bone which will not heal, many methods have been tried, including Senn's bone ships, Thiersch's grafts and muscle flaps. Removal of all bone subperiosteally, transplantation of bone or of periosteum, are other methods to be tried. Bier's hyperemic treatment and Beck's bismuth paste treatment were mentioned. Syphilitic osteomyelitis is of rare occurrence; generally attacks phalanges of finger or toes. In congenital types, treatment of local conditions is about the same as in other forms, excepting that internal treatment for syphilis should be included. Syphilitic periostitis commences as a gumma; exciting cause probably traumatism; periosteum is invaded by soft granulating tissue forming the flattened swellings or gummata. Membrane becomes thickened; nutrition of bone becomes interfered with, and destruction of latter follows. Condition generally yields to anti-syphilitic treatment.

Adjourned.

H. D. McCORMICK, Secretary.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held in the Gary Public Library February 13, with eleven members present, Dr. Weis presiding. Minutes of January meeting read and approved.

Dr. C. C. Robinson was elected to membership in the society.

Dr. Scull reported case. Woman, aged 78; suddenly became unconscious for several hours. On awakening complained of numbness and tingling sensation over body; became very warm, and later extremely cold; insomnia marked; enlarged thyroid twenty years; fine tremor; no protrusion of eyes; mitral murmur; marked arteriosclerosis; pulse irregular with accentuated second sound; reflexes not exaggerated. Dr. Scull asked for diagnosis.

Dr. Howat suggested that unconscious state was probably due to shutting off of blood-supply from some portion of brain.

Dr. Melton thought the condition might be due to paresis.

Dr. Weis reported a case of a child of 7 months; measles; no treatment. A lump appeared on side of neck a few days after eruption had disappeared; emphysematous condition spread rapidly, extending over upper chest and back. Temp. 102 before this condition appeared; now 99.4. Dr. Howat, suggested that condition was either emphysema or a rupture of pulmonary apex. Dr. Oberlin considered prognosis good.

Dr. Howat reported case of child with clinical history of recurrent attacks of bronchitis. Child very sick for several days during each attack. One morning had severe chill and vomiting spell, during which child ejected large kernel of corn which apparently had been lodged in bronchus.

Dr. Oberlin reported case of girl in whose bronchus a piece of shingle $\frac{3}{4}$ by $\frac{1}{4}$ inch had become lodged. Symptoms those of croup. Obstruction successfully removed.

Motion carried that inasmuch as Dr. Bicknell, vice-president, had moved from county, that a successor be elected. Dr. Scull unanimously elected to fill vacancy.

In connection with bulletin issued by the society, Dr. Weis called special attention to the article therein on the Medical Library, and urged members to seriously consider the question.

Dr. Goldberger read a paper on "Vaccine Therapy." Dr. Goldberger took up early history of immunity and bacteriology. Classified vaccines as being stock or autogenous. Changes in anti-bacterial power of blood which follow use of bacterial vaccines were first tested on man by Wright in his anti-typhoid vaccinations, and still further in the investigation of its use in tuberculosis, bubonic plague, pneumonia, etc. Wright has pointed out that in infections above the diaphragm, the infection is most frequently due to pneumococcus, and those below the diaphragm to colon bacillus. Reported case where one Boston observer had given ten billion dead staphylococci at a single injection through error. Patient collapsed but responded quickly to strychnia and hot applications, and practically recovered in 15 minutes. Important to determine size of initial dose. Dosage in America apparently higher than in England. Essayist urged strict aseptic precautions in administration of vaccines; usually gives injections into arm. The following conclusions were made in closing: 1. Bacterial vaccines are harmless; 2. As accurate a diagnosis as possible should be made and respective vaccine injected early and in sufficient quantity as is compatible with individual case, all things being considered; 3. When autogenous vaccines are required, they should be made by an expert bacteriologist, and especially in a laboratory under govern-

ment supervision; 4. We should use vaccines in connection with our old treatment of that particular condition. Vaccine therapy does not preclude ordinary methods of treatment.

Dr. Oberlin: Was a skeptic concerning vaccine therapy originally, but has now come to look upon it as a great addition to physician's armamentarium. His first use of vaccines was a case of intense infection in hand and forearm; mixed stock vaccines were used and results were astounding. Would like to be able to use autogenous vaccines. Has used vaccine treatment in rheumatism, one case being sciatic. Results generally very good. Has had reaction in a few cases. Believes vaccine therapy still in its infancy.

Dr. Howat cited a case in which reaction was marked; patient, an elderly woman with chronic rheumatoid arthritis. First injection consisted of about half usual dose; no reaction; second, almost full dose—some local reaction; itching over same side of body as site of injection. Temperature raised for three or four days, then subnormal, and remained so ever since. Results generally good with stock vaccines; has had no experience with autogenous vaccines. Recommends conservative use of vaccines in all infections.

Dr. Melton reported a case of pulmonary tuberculosis, with a mixed infection, which he treated with both tuberculin and mixed vaccines. Good result.

Dr. Laws cited case of mixed infection with rapid loss of weight, cough, etc. Gave frequent injections of mixed vaccines; temperature became normal; patient gained 27 pounds; infection disappearing rapidly.

Dr. Scull inquired concerning use of vaccines in scarlet fever.

Dr. Oberlin reported that he had used them in several cases with uniformly good results.

Dr. Howat reported case of scarlet fever in a child with very large tonsils. Gave both mixed vaccines and diphtheria antitoxin. Case cleared up rapidly and tonsils sloughed out.

Dr. Goldberger, closing: No set rules for dosage. Allen reports very favorable results in scarlet fever. Holt states that more than 50 per cent. of scarlet fever cases have diphtheria involvement. This explains the benefit so frequently seen from administration of antitoxin in these cases.

Owing to lateness of hour, Dr. Melton's paper on "Conservative Surgery" was postponed to the March meeting. Dr. Laws will also read a paper at the March meeting on "The Diagnosis and Treatment of Pleurisy."

On motion it was decided that the regular April meeting be set apart for clinic night.

Adjourned.

E. M. SHANKLIN, Secretary.

MADISON COUNTY

The Madison County Medical Society met in the Public Library in Anderson, February 25. at 4 p. m., Vice-President S. C. Newlin in the chair. There were twenty-six members and six guests present. Minutes of previous meeting read and approved.

Secretary called attention of society to Senate Bill No. 337, concerning chiropractors: members voiced their disapproval of the bill and a committee was appointed to see our senators personally.

Dr. Gante reported a case of duodenal ulcer and exhibited specimen.

Dr. A. C. Kimberlin, of Indianapolis, gave an instructive talk on gastric ulcer. He reviewed the symptomatology, the medical and surgical aspect of gastric ulcer. For treatment outside of surgery, give morphin until you cannot see, feel or hear peristalsis.

Adjourned.

ETTA CHARLES, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session February 27, at 1 p. m., in Plymouth City Hall, with nine members present. Minutes of previous meeting read and approved.

Motion carried that order of business be changed and that reading of papers take place last.

Motion carried that the fee bill as reported by committee be accepted. Motion also carried that committee have fee bill printed and send it to each doctor in the county for his signature.

Committee on meeting place was granted further time.

After some discussion, the secretary was instructed to write the State Board of Medical Registration and Examination and obtain an opinion as to whether chiropractors can practice under the present medical law.

Correspondence from Red Cross Society was read, and president instructed to appoint three members to act on committee with president and secretary of the medical society, as requested in the communication.

Drs. C. H. and S. M. Bockoven, and W. C. Sander were elected to membership.

Dr. Eley read a paper on "Fractures of the Thigh or Femur." Dr. Eley said these fractures would heal as quickly as other fractures if broken surfaces were kept in good apposition. He favors an apparatus that would suspend the thigh at right angles with the body, with the knee flexed at right angles with the thigh.

Dr. Preston spoke in favor of bone plates. Dr. Stevens favored the inclined plane. Generally agreed that each case is a law unto itself as to treatment.

Dr. Parker read a paper on "LaGrippe." Dr. Parker emphasized the fact that influenza is not the simple disease sometimes thought, and laid special emphasis on the sequellae. General discussion.

Adjourned.

A. A. THOMPSON, Secretary.

MONTGOMERY COUNTY

Meeting of January 21

Montgomery County Medical Society met in small court room, Crawfordsville, with Dr. O. H. Jones in the chair. Minutes of December meeting read and approved.

The rules were suspended and the following doctors were voted into full membership: Drs. R. W. Foster, N. R. Peacock, Thos. L. Cooksey, Thos. J. Griffith, M. H. Griffith and Geo. E. Clements.

Dr. N. A. Cary read an interesting paper on "Tuberculosis of Genito-Urinary Tract in the Female." General discussion. Society recommended that this paper be read at the meeting of the Ninth Councilor District Medical Society at LaFayette, May 7.

Adjourned.

J. L. BEATTY, Secretary.

Meeting of February 18

The Montgomery County Medical Society met in regular session February 18 at Crawfordsville, with 20 members present. Minutes of previous meeting read and approved.

Motion carried that president appoint a committee of five members of society (including president and secretary ex-officio) to cooperate with Red Cross Society.

Motion carried that secretary forward resolutions endorsing work of our state Committee on Inebriety, to the proper persons, urging the legislature to pass bills that have been introduced, and which if passed will to a great measure control and care for the inebriates in Indiana.

Dr. W. T. S. Dodds, of Indianapolis, presented a paper on "Arteriosclerosis," in which he said that the condition is not a disease but a symptom-complex which should be taken as a danger signal or warning of a change taking place in the arteries; condition might be called a displacement fibrosis. This symptom-complex is not to be confused with atheroma, end-arteritis obliterans or senile calcification of arteries, though these conditions may accompany one another. The high tension usually found in arteriosclerosis is nearly always a physiological process brought about by Nature to keep up the circulation as it should be. The inelasticity of arterial walls is due to fibrosis, caused by failure of exercising muscular coat properly, or to some extent to toxins circulating in the blood, which toxins have been formed by protein indigestion somewhere in alimentary tract. The toxin theory is not well supported by many eminent writers. We do not always have arteriosclerosis present when we have a hardened or beaded radial artery, and neither can we always locate easily the arteriosclerotic artery. The condition comes on usually in men past 30 years of age, and is indicated by uneasiness, inability to sleep as before, shortness of breath on least exertion, easily irritated and often confused when before everything seemed clear. Tinnitus aurium and some vertigo may be noted. Nitrogen output is lessened; may have frequent urination. Much evidence can be gained of arteriosclerosis by observing the aortic second sound. High tension is a necessity and when lowered to a certain degree, symptoms become alarming.

Treatment of this condition is directed to the cause, i. e., regular habits, cessation of worrying, plenty of time away from business in open air, golf or tennis playing, arterial gymnastics in which are brought about dilatation and contraction of arteries even to becoming slightly exhausted. Patient must cease his activities and give special care to digestion. Drug treatment should be directed chiefly toward elimination by baths, laxatives, diuretics and breathing exercises. Digitalis must be used when cardiac failure as by failure of compensation is noted.

Dr. Dodds spoke very highly of results given by high frequency auto-condensation current, and demonstrated its effect upon a man whose blood-pressure was 145 mm. systolic, and diastolic 85 mm. After 10 minutes of exposure, readings were, systolic, 135 mm., and diastolic 90 mm. Patients having a pressure of 260 to 310 mm. have been made quite comfortable and the disturbance apparently cured by this method of treatment.

A vote of thanks was extended Dr. Dodds and his assistant.

Adjourned.

J. L. BEATTY, Secretary.

POSEY COUNTY

The Posey County Medical Society met in regular session at Mt. Vernon on Feb. 20, with 16 members present.

The forenoon was spent socially, and at noon the society lunched at the Mecca Café where an elegant menu was served.

The scientific session was called to order at 1 p. m., by Dr. Arburn, chairman pro tem.

Dr. Albert E. Sterne, of Indianapolis, delivered an address on "Serous or Exudative Encephalitis, or Conditions of the Brain Simulating Gross Lesions and Typhoid."

Dr. Fullenwider presented a case of acromegaly of 20 years' standing. Dr. Rinear presented a case of neuritis and Dr. Welch presented a case of chorea complicated with purpura. Dr. Ramsey presented a child 3 or 4 years old, absolutely devoid of intelligence, probably due to lues.

The next meeting of the society will be held in New Harmony in May, and a very interesting session is anticipated. Dr. Huesler will read a paper on "Change of Countenance and Gestures of Sick Children."

A vote of thanks was extended to Dr. Sterne for his excellent address.

Adjourned.

EDWIN RINEAR, Secretary.

PUTNAM COUNTY

The regular meeting of the Putnam County Medical Society was held in Greencastle on February 11.

Dr. Wm. S. Tomlin, of Indianapolis, read a very interesting paper on "Mastoiditis and Complications." General discussion.

Following the scientific session a banquet was enjoyed.

Adjourned.

E. HAWKINS, Secretary.

VANDERBURG COUNTY

Society met in regular session February 11. Dr. W. S. Pollard was elected as an honorary life member of the Society.

Dr. B. L. W. Floyd presented a paper on "Neuroses of the Pharynx," with report of a case, and Dr. Walter Pollard read a paper on "Malignancies of the Lip."

Adjourned.

WM. S. EHRLICH, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

SODIUM GLYCEROPHOSPHATE (sodii glycerophosphas) is hydrated sodium glycerophosphate, $\text{Na}_2(\text{C}_3\text{H}_5(\text{OH})_2)_2\text{PO}_4 \cdot 5\frac{1}{2}\text{H}_2\text{O}$, containing not less than 99 per cent. of hydrated sodium glycerophosphate. It is crystalline,

quite soluble in water, but insoluble in alcohol. Its properties and dosage are similar to those of calcium glycerophosphate (see N. N. R., 1913, p. 118).

SODIUM GLYCEROPHOSPHATE, MONSANTO, is a non-proprietary article and complies with the tests laid down for sodium glycerophosphate. Monsanto Chemical Works, St. Louis, Mo. (*Jour. A. M. A.*, Feb. 8, 1913, p. 442).

VACULES DIGITOL contain digitol 30 c.c. in sealed ampules. The air in the container is removed before sealing, whereby, it is claimed, deterioration of digitol is retarded (*Jour. A. M. A.*, Feb. 8, 1913, p. 442).

HEDIOSIT is the lactone or inner anhydride, $C_{17}H_{15}N_7$, of alpha-glucosheptonic acid, $CH_3OH.(CHOH)_5COOH$. It is an odorless powder having a sweet taste and is readily soluble in water. When given to diabetic patients hediosit is said not to increase the amount of glucose in the urine. It is claimed to have a food value equal to the same amount of glucose. It is said to be useful as a sweetener of the food for diabetic patients. Farbwerke-Hoechst Company, New York (*Jour. A. M. A.*, Feb. 15, 1913, p. 516).

ISATOPHAN is methoxy-atophan, 8-methoxy-2-phenyl-quinolin-4-carboxylic acid, $CH_3O.C_7H_4.N.C_6H_5.COOH$. 8:2:4. It is a powder insoluble in water, tasteless, and has a slight odor. Its actions, uses and dosage are the same as for atophan. It is also sold in the form of Isatophan tablets, each containing 0.5 gm. isatophan: Schering & Glatz (*Jour. A. M. A.*, Feb. 15, 1913, p. 516).

REFORM IN MEDICINES

SULPHURIC ACID PASTE.—W. A. Pusey reviews the history of the use of sulphuric acid as a caustic. Sulphuric acid has been known since the sixteenth century, and doubtless it has been used as a caustic since that time, for its caustic action is its most obtrusive quality. To prevent its spread beyond desired limits, it has long been the practice to make it into a paste by incorporating with it some inert solid substance, such as sawdust, sulphur, charcoal, asbestos, saffron and lampblack. Pusey states that a sulphuric acid paste may be used effectively to destroy lesions in the skin, but that it is not a desirable agent to use for the removal of blemishes or when cosmetic results are to be considered because the extent of its action is not easily estimated and because, like other mineral acids, its use on the skin is not infrequently followed by keloids or unsightly scars. Even for the treatment of lesions in which effectiveness is the chief or sole end aimed at, as in epithelioma, Pusey believes it is not a preferable caustic (*Jour. A. M. A.*, Feb. 8, 1913, p. 434).

THOREMEDIN.—The claims made for Thoremadin having been questioned, E. R. Squibb and Sons submitted Thoremadin Paste, with the subsidiary preparations, Thoremadin Liquid and Thoremadin Ointment, to the Council with the agreement to discontinue the sale of these preparations if the claims were not found correct. The Council secured the aid of experts to test Thoremadin Paste side by side with a simple sulphuric acid paste, the identity of the two preparations not being disclosed to the experimenters. The result of the experiments together with other evidence showed that Thoremadin Paste possessed no advantages over a simple sulphuric acid paste and hence the Council voted that the several Thoremadin preparations be refused recognition. In accordance with its agreement the firm of Squibb & Sons announces that Thoremadin has been withdrawn from the market (*Jour. A. M. A.*, Feb. 8, 1913, p. 462).

PHYLACOGENS.—It is stated in the phylacogen "literature" that they are neither bacterial vaccines or serums as ordinarily understood, but sterile aqueous solutions of metabolic substances or derivatives of bacteria grown on artificial media. In view of the

variability in the growth and activity of different strains of the same bacterium and of the same strain of different times, constant and accurate dosage is not possible. This is an important consideration because the phylacogens are primarily toxins, sometimes sufficiently so to produce even highly alarming reactions. There is no escape from the possibility that such toxic effects may turn the scales against the patient who is the victim of pneumonia or other acute affections already struggling against the full measure of bacterial intoxication (*Jour. A. M. A.*, Feb. 1, 1913, p. 373).

CHOLEGEN.—Chologen is a medical treatment for gall-stones. The treatment consists of three kinds of tablets: No. 1 contains calomel and podophyllin, No. 2 calomel and No. 3 calomel, podophyllin, camphor and menthol. The treatment, according to the promoters, is to be proceeded with in spite of disturbances, such as diarrhea and pain in the abdomen, and is to be repeated regularly for some years. It is worthy of note that experimental work seems to have been performed in an attempt to show that bile produced by this remedy will cause the disintegration or solution of gall-stones. While normal bile has a certain solvent action on gall-stones, calomel and podophyllin do not increase the amount of bile. It is somewhat discouraging to reflect that some physicians entertain so low an estimate of their ability to prescribe such well-known remedies as calomel and podophyllin that they must use them in fixed combinations (*Jour. A. M. A.*, Feb. 1, 1913, p. 383).

THE DANGER OF PROTONUCLEIN.—Reid Hunt and Atherton Seidell have shown that, like the anti-fat nostrums Rengo and Marmola, Protonuclein contains thyroid in amounts sufficient to cause pronounced thyroid effects in many conditions. And yet Protonuclein has been advertised as a "perfectly harmless antitoxin tissue-builder." The danger of using thyroid, the most powerful tissue-destroying drug known, in cases of typhoid, phthisis, etc., for which Protonuclein was recommended, in which the physician is supposed to use every effort to build up the system, is obvious (*Jour. A. M. A.*, Feb. 1, 1913, p. 384).

THE SPECIAL PACKAGE EVIL.—The use of proprietaries by physicians not only suggests self-medication to the patient, says W. C. Wescott, but it also causes the patient to lose confidence in his physician. Those who do not want to have the reputation of prescribing proprietaries should bear in mind that almost all are put up in a distinctive package and that the druggist is most likely to dispense it in this package. As a result it is more than likely that the patient will find it out if a proprietary is prescribed, no matter whether it is Fellows' Syrup with the name blown in the glass or the very ethical and probably valuable atophan with its neat little "star-bespangled" box, even if the physician takes pains to write special directions and the druggist removes the printed label and affixes his own (*Jour. A. M. A.*, Feb. 1, 1913, p. 387).

PRESCRIBING NAMES.—In exploiting Syrup Cocillana Compound, the manufacturers have used a method as old as the nostrum business itself. They have taken a mixture of little-known and therapeutically worthless drugs, added some well-known and valuable drugs and marketed the product in such a way as to lead the thoughtless to imagine that its therapeutic virtues are due to the little-known ingredients. The prescriber believes, consciously or unconsciously, that the cocillana gives to this mixture therapeutic properties that his judgment would tell him he never could ascribe to the well-known ingredients of the mixture (*Jour. A. M. A.*, Feb. 15, 1913, p. 526).

THE EMETIC ACTION OF DIGITALIS.—Having previously shown that the emetic action or "gastric disturbance" of digitalis is produced by action on the vomiting center in the medulla and a property of digi-

talism itself, Hatcher and Eggleston have now studied the relation of the toxic dose to the emetic dose in a large number of digitalis drugs and preparations. The results will require a revision of many statements generally accepted by medical authorities. They show that the claims made for the proprietary preparations as to freedom from "gastric" effect, i. e., emetic action, are entirely without foundation. The investigators conclude: We have no means at present of securing the cardiac actions of the digitalis bodies without subjecting the vomiting center to the influence of these agents at the same time, and there is no advantage in substituting one mode of administration, or one member of the group, for another, and the employment of opium to prevent the gastro-intestinal symptoms of the digitalis bodies in ordinary cases masks the appearance of toxic symptoms which should serve as a signal for the reduction of the dose. Our results certainly lend no support whatever to the claims made that digalen, digipuratum, digitalysatum or the fat-free tincture of digitalis is in any way less actively nauseant or emetic in proportion to its cardiac activity than any of the better known and less expensive galenical preparations of digitalis and strophanthus (*Jour. A. M. A.*, Feb. 15, 1913, p. 499).

SYRUP COCILLANA COMPOUND.—It would be hard to find a better specimen of a shot-gun prescription. Not only does the preparation contain eight ingredients, but one of those ingredients (Compound Syrup of Squill) contains three in itself. The drug which gives the preparation its name (not the action) has properties similar to ipecac. Besides Cocillana, the preparation contains two other obsolete drugs, wild lettuce and euphorbia pilulifera. The activity of the "cough syrup," it is needless to say, depends in the main on the drug which is more or less buried in the published formula: heroin hydrochlorid. No doubt it is this drug which makes it "a good repeater." Syrup Cocillana is a nostrum sailing under false colors (*Jour. A. M. A.*, Feb. 15, 1913, p. 537).

MAIGNEN PULV.—The powder is advertised by J. P. Maignen, Philadelphia. It is said to be valuable for the treatment of a long list of diseases and for application in various ways to lesions of the skin and subcutaneous tissues and to the various mucous membranes of the body. The circular states that its germicidal power is 3.75 times as great as that of phenol. Examination in the A. M. A. Chemical Laboratory showed the powder to be apparently a mixture, consisting largely of calcium oxid or hydroxid and sodium carbonate, which on treatment with water results in a mixture containing calcium carbonate and sodium hydroxid. While it is known that strong solutions of alkalis are germicidal, it is also well known that such solutions cannot be used in concentrations which possess any activity. Further, when taken internally as recommended, the alkali will be neutralized by the hydrochloric acid of the stomach. The claims therefore are evidently absurd and not deserving of consideration (*Jour. A. M. A.*, Feb. 15, 1913, p. 537).

FORMALDEHYD DERMATITIS.—W. E. Morgan reports a severe dermatitis caused by the use of alcohol denatured with formaldehyd. So many members of the medical profession have been invalidated physically, incapacitated for professional work, deprived of livelihood and rendered nervous wrecks by this peculiarly subtle and all-pervading vaporous poison that it should be relegated, writes Dr. Morgan, to the uses of the undertaker and pathologist only and then used with extreme care. If used for fumigation, the room and all its contents should be thoroughly aired for at least forty-eight hours (*Jour. A. M. A.*, Feb. 22, 1913, p. 590).

DIORADIN AND DR. BERNHEIM.—Recently the Council on Pharmacy and Chemistry rejected Dioradin, largely because the claims of its chief promoter, Dr. Bernheim,

were questioned. In an interesting lawsuit light has been thrown on the methods of the promoters of Dioradin. For four years Dr. Louis Dieupart was head physician of the dispensary for the tuberculous established at Saint-Denis, at the head of which is Dr. Samuel Bernheim. Bernheim discharged Dieupart for refusal to use Dioradin. Dieupart protested, on the ground of the inefficacy of Dioradin. At the trial he testified that Dr. Bernheim received a commission on all Dioradin used at the Saint-Denis dispensary (*Jour. A. M. A.*, Feb. 22, 1913, p. 608).

BOOK REVIEWS

MUSCLE SPASM AND DEGENERATION IN INTRATHORACIC INFLAMMATIONS AND LIGHT TOUCH PALPATION. By Francis M. Pottenger, A.M., M.D., LL.D. Medical Director to the Pottenger Sanitarium for Diseases of the Lungs and Throat, Monrovia, Cal. 16 illustrations. Cloth, 105 pages. Price, \$2.00. Published by C. V. Mosby Co., St. Louis, 1912.

In this work Dr. Pottenger has endeavored to emphasize the importance of the spasm of certain groups of muscles in acute diseases of the chest and degeneration of such muscles in chronic thoracic diseases, and at the same time has emphasized the possibility and practicability of delimiting normal organs and diagnosing diseased conditions within the chest and abdomen by very light touch. Doubtless to one so experienced in the study of chest lesions as Dr. Pottenger, certain refinements of diagnosis must appeal as eminently more practical than the same methods would seem to the routine clinician. It will be readily appreciated how difficult it might be for one who does not devote his whole time to the inspection and palpation of the chest and its musculature to comprehend these minute variations in the contour and the feel of such surfaces. We doubt not, however, that to Dr. Pottenger, these methods so carefully and minutely described by him, are of immense clinical value, and trust that more careful study of his little text on the subject will prove of value to those who are fortunate enough to possess the volume.

A TEXT-BOOK OF OBSTETRICS. Including Related Gynecologic Operations. By Barton Cooke Hirst, M.D., Professor of Obstetrics in the University of Pennsylvania. Seventh Revised Edition. Octavo of 1,013 pages, with 895 illustrations, 53 of them in color. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$5.00 net; half morocco, \$6.50 net.

It would seem that a work which has met with the approval of physicians so generally, and is so well known and in such demand that it has gone through seven editions and has been reprinted twelve times needs no review, as the review could not possibly add anything that has not already been said of it. The preface to this edition notes the changes made and appears in full below.

A more logical order has been adopted in this edition. The physiology of the process of generation precedes the pathology, with the exceptions that sterility is better considered in direct connection with normal conception and that the malpositions and presentations naturally come under the head of Mechanism of Labor.

The policy of including the diseases of women and their treatment as a necessary part of Obstetrics is

continued. Pedagogically and scientifically this course is correct. The consequences of child-bearing constitute the vast majority of the diseases of women. All these diseases are possible complications of the generative process. The master of a modern maternity service is the only specialist in command of sufficient clinical material to be a qualified expert.

Following the example of the whole civilized world, with the single exception of France, some of the best medical schools of America have dispensed with a separate department for teaching diseases of women; the rest will eventually do the same to avoid the unnecessary duplication and the imperfection of teaching inevitable if the two subjects are separated. In view of these facts it is not surprising that the plan adopted in the former edition has apparently met with the favor of the medical public for whom the book is written.

An innovation in this edition is the extension of the article on Diseases of the Breast. With a clinic of three or four thousand women a year, the head of an obstetric department has opportunities for acquiring experience in diagnosis and skill in treatment that no general surgeon can rival. Hence these diseases must become part of the obstetrician's specialty.

The literature has been carefully reviewed. Advances which appear to the author of permanent value are incorporated in the text. Many new illustrations have been added. A number of the older pictures have been modified. Some of them have been discarded.

THE CHEMIC PROBLEM IN NUTRITION (MAGNESIUM INFILTRATION). A Sketch of the Active Factors in Disorders of Nutrition as Related to Diseases of the Nervous System. By John Aulde, M.D., Formerly Assistant Physician Outpatient Department, Jefferson Medical College; Demonstrator of Physical Diagnosis and Clinical Medicine, Medico-Chirurgical College, etc. Illustrated with 4 plates. Cloth. Pages, 410. Published by John Aulde, M.D., Philadelphia, 1912.

The field of medical research is now too much filled with standard text-books on the various well-known hypotheses for any student of medical literature to occupy his time in pursuing the fads of mere theorists. To say that practically all the diseases from neurasthenia and heart disease of various forms to bacterial infections and inflammation are due to some diminished alkalescence or chemic deviation is decidedly extravagant, to say the least. It is probably true that certain metabolic disturbances do result in retention of some mineral salts whose elimination would be decidedly beneficial but no sane clinician would be willing to concede this to be a factor in the wide variety of conditions credited to it by the author. So that for the present it is the fear of the reviewer that Dr. Aulde will remain decidedly lonely in the pursuit of his theories.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at Mercy Hospital, Chicago. Volume I, Number 6 (December). Octavo of 153 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Published bi-monthly. Price per year: Paper, \$8.00. Cloth, \$12.00.

This number of the popular publication of Murphy's Clinics opens with a very interesting discussion of Carcinoma of the Breast, combined with a talk on the subject by Professor Bastianelli of Rome. Then follows a very interesting discussion on the Improvements in

the Treatment of Malignant Tumors with Radio-Active Substances, by Dr. Caan, of Czerny's Clinic in Heidelberg. The principal subjects he discusses are thorium and mesothorium, the results from which, in certain inoperable cases in their hands, have seemed to be decidedly encouraging. This was particularly true in a few cases of carcinoma of the esophagus, a condition heretofore regarded as so utterly hopeless in its outcome.

Some very practical points are dwelt upon by Dr. Murphy in the next section which is a consideration of salpingitis and pelvic infections. The bulk of the remainder of the number is taken up by the consideration of fractures of one sort or another. A few typographical errors unfortunately find place in this number, and in the section on salpingitis one encounters a tiresome dialogue upon non-essential points between the chief of clinic and intern, wherein the intern is unwarrantedly taken to task, and once the chief insists that the uterus had been packed with gauze when the history distinctly states that it was the vagina. The reviewer ventures to suggest that the elimination of much of this argumentation would add materially both to the comfort of the reader and the value of the contribution.

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor in Therapeutics, Jefferson Medical College, Philadelphia, Pa. Dec. 1, 1912. Lea & Febiger, Philadelphia, Pa. \$6.00 per annum. The first section of this number, that by Goodman

on diseases of the digestive tract and allied organs, devotes much space to disorders of the stomach. Of the pathologic conditions of the stomach, ulcer and carcinoma, of course, occupy the central points of discussion. Under the subject of gastric hemorrhage we find no mention made of that common cause of hematemesis recently dwelt upon by Cabot, namely, hepatic cirrhosis. Under the subject of duodenal ulcer first place is given to the contribution of Moynihan, which is largely a repetition of his former publications on the subject. The literature on the use of hormonal in the treatment of constipation is reviewed and summarized in the conclusion that the measure is not altogether a harmless one, and should be utilized only with extreme caution.

Bradford's section on diseases of the kidneys opens with the discussion of the subject of hemoglobinuria.

In this section of Bradford's no mention is made of the excellent work of Widal and Castaigne, along with other French investigators, in determining the type of kidney disease by an examination of the blood for its chlorid or urea content. This method bids fair to become most valuable in both the prognosis and treatment of the various forms of nephritis.

In Bonney's section of genito-urinary diseases appear further reports upon the surgical treatment of nephritis, no one of which is as enthusiastic as was the original Edebohls.

As usual Bloodgood's section on shock, anesthesia, infection, surgery of the extremities, etc., is both well written and exhaustive.

The number closes with the section of Landis on therapeutics, which is in this number quite interesting.

There appear, unfortunately, a few typographical errors, which are a decidedly unusual feature in this most excellent quarterly.

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OF THE

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NUMBER 4

Original Articles

THE MAKING OF A SPECIALIST *

JOHN F. BARNHILL, M.D.
INDIANAPOLIS

Since the House of Delegates has honored the ophthalmologists and otolaryngologists of Indiana by establishing a separate section for the deliberation of its members, it becomes our duty to accept the trust thus imposed, and to establish and maintain a standard of excellence in these important branches equal to the parent sections of medicine and surgery.

The occasion seems an opportune and proper time for a discussion of the present status of specialism, and especially to examine in an entirely unbiased manner into the preparation of the specialist for the work he assumes to do. The statements made here concerning the subject apply equally well, it is believed, to all specialists other than those practicing eye, ear, nose and throat. It is not intended that any reference here made should have any personal or local application, for it is desired to deal with the question in a broad, sympathetic and general manner.

Before undertaking to outline some of the most essential qualifications of the specialist in medicine it may be helpful to get a definition of the term. The Standard Dictionary states that a specialist is a person devoted to some one line of study, occupation or professional work. This definition seems wholly faulty when applied to the specialist in medicine, for it certainly does not cover all the points such a specialist should possess. A better definition would be: A spe-

cialist in medicine is a thoroughly trained physician, who because of additional training and accurate study of some given division of medicine or surgery has acquired advanced and useful knowledge of the anatomy, physiology, pathology and treatment pertaining to such division. Whatever definition is accepted as to what a specialist really is, or should be, it is certain that the public expects of any one calling himself a specialist a greater amount of accurate knowledge on a given point than can be obtained from any other source. Specialists, therefore, who would honestly meet this view, must in fact more than mere assumption, be a superior class of individual, at least in one or a few subjects in which the world is interested. It is wise and proper, therefore, that both individual specialists and sections devoted to specialism should occasionally consider it a duty to look in, as it were, on their qualifications to the title they assume in order that they themselves, at least, may not be too grossly deceived, concerning the same.

According to the definition just quoted from the Standard Dictionary as to what constitutes a specialist, any physician may become one, over night, by the simple and convenient process of electing to do so; for all that is necessary is simply to devote one's whole time to a given subject in order to fulfil whatever moral obligation a specialist may owe the public. Since there is no legal impediment in any state, in so far as I know, the poorest, meanest or most illy-trained physician may become a specialist in any branch of medicine or surgery, in the twinkling of an eye, without a moment's preparation or training of any kind that would in any sense fit such physician for the higher task he proposes to do. The ease with which a physician may convert himself into a specialist, the belief on the part of the public that this is an age of specialists, and that consequently specialism will be demanded in

* Read before the Indiana State Medical Association, at Indianapolis, Oct. 10, 1912.

everything medical has bred several classes of specialists in medicine in such great numbers in the past few years that, at present, almost every village boasts one or more, the county seats a score of one variety or another, and the cities a proportion unbelievably large. Many of these have had no special training in the work they are doing. Others have spent a few weeks of indifferent, elective attendance at some proprietary post-graduate school, while still others, who almost invariably lay great claim to superiority in extensive preparation, have spent a summer vacation abroad where they incidentally "looked in" on a clinic here and one there, conducted in a foreign language, which is understood by comparatively few American students. Then there is, fortunately, the specialist who, having grounded himself in the essentials of general medicine, undertakes two or three years of special study at home or abroad and who seeks and merits by the length of his courses and high class of his service an assistantship in some special hospital where constant and prolonged experience and observation is possible. This type of specialist is at present too rare.

An analysis of the situation leads to the conclusion that specialism in medicine in America is running pretty wild at present. The reason is not far to seek. There is no standard of preparation required, and no control or regulation of the conduct of the specialist anywhere. He is seldom held responsible to anybody either for his existence as a specialist or for the quality of his work, and in these respects the problem is analogous to that which existed in undergraduate medical study twenty years ago. I refer to the fact that at that time any person, young or old, educated or wholly ignorant, reputable or otherwise, could at will enter medical college, attend indifferently, work when he pleased, but if the fees were paid in due time such student was declared qualified and given legal authority to practice medicine in all its branches. Now the under-graduate student must be reasonably well qualified because there is watchfulness, regulation and educational requirement at every step of his progress. The laws of the state say when the student is sufficiently qualified to enter on the study of medicine, and the same laws say when he is properly fitted to begin practice. State boards have erected barriers against the admission of the ignoramus, and the great universities have, as in our own state, undertaken to reclaim medical instruction as an important part of their own, and have set up such standards of proficiency for graduation that the young physician of the hour must be reasonably safe. But while

the undergraduate is held to sane educational requirements up to the time he receives a diploma, after that, should he desire to do so, he may hold himself before the public as a physician possessing advanced knowledge by simply announcing that he is a specialist in this or that branch of medical practice. There is no check on the claims of the practicing specialist either by the Council on Education of the American Medical Association, the American Medical College Association or by state examining boards, and the public is only just beginning to realize that the term specialist may not be synonymous with medical wisdom.

Speaking of the training, or lack of training in the preparation for the practice of ophthalmology, Jackson, of Denver, makes the following observations in *The Journal of the American Medical Association*, Sept. 21, 1912:

"Ophthalmology is learned quite outside of our teaching institutions by those sufficiently interested and fond of study, through the systematic reading of text-books, monographs and ophthalmic journals; through the conscientious observation and consideration of such patients as come under their care; through service in private office or public clinic as assistant of some one more advanced in the line; through residence and service in one of our few ophthalmic hospitals, or through visiting and following, more or less closely, similar work in the medical centers of this country or abroad. In a very large degree the American ophthalmologist of to-day is self-educated. This has its advantages that are appreciable in the individual case; and its fatal disadvantages, as a general method of instruction for a profession on which the community has to depend for important special service.

"There is a dark side to the working of this system, or lack of system. With the absence of any authority to lay out and enforce a systematic course in ophthalmology, or to determine when such course has been successfully pursued, the community is at the mercy of the 'get-rich-quick' scheme that leads the man, who is making a failure in some other line of practice, to go to a six-weeks' proprietary post-graduate institution and then to return to the scene of his former failure, or more often, to make his appearance in some other part of the country as a full-fledged specialist in diseases of the eye, and probably also of the ear, nose and throat. The six weeks, if at all devoted to the effort, furnishes two or three times as many hours as the undergraduate medical school gives to ophthalmology, and will give the would-be specialist a start which places him at an advantage over the general practitioner of the community in which he settles. Only a few shrewd judges of men will be able to pierce the

thin cloak of special knowledge that veils the underlying ignorance. The six weeks' graduate will get patients suffering from diseases of the eye, and will come to be known as an authority in that branch by a good many people in the region. And, although he never opens a new book or learns the name of an ophthalmic journal, his place among ophthalmologists, as well as that of the more conscientious student, is thenceforth established; and the courage that enabled him to strike out into this new unguarded field is abundantly rewarded."

I do not desire to give the impression that the majority of those who practice specialized medicine are ignorant and are not making strenuous, honest effort to master their particular line of work, for the truth is that many such are aflame with the spirit of advance, are working incessantly and with almost incredible energy to keep abreast modern progress. The chief difficulty of the situation is that the whole status of the specialist is entirely a voluntary one. He may prepare himself or not as most pleases him. He may choose to follow the most difficult specialty or the easiest one. He may lag fifty years behind present knowledge or he may be in the van of progress, but whatever he may choose to do and whatever the amount of preparation he may have, he is to-day a specialist with, as our lawyer friends would say, all the rights and privileges pertaining thereto.

There are at present at least two notable difficulties in the making of a well-trained specialist. The first is that many who think they are "called" to be specialists are too often totally lacking in the fundamental knowledge which forms a rational basis for special training. For example, a physician decides on some dull day in his practice to become a specialist. The fact that he has no foundation on which to add advanced study does not hinder his purpose, for should he decide he should do a little post-graduate study he will find that post-graduate schools do not demand any particular degree of preparation for entrance into courses leading in six weeks to a certificate, possession of which usually signifies to the public a sufficient proficiency. Total lack of knowledge in the fundamentals leads such student to do only what he calls *practical work*, which consists in elbowing one's way as nearly as possible to the operator, and seeing indifferently some surgical performance which he is at best only poorly qualified to copy. Compare this common plan of making a specialist with, for example, that of a chemist who desires to specialize. With the latter, years of foundation study are necessary, and more years of special study for the specialist in chemistry. The favor would seem, in such comparison, to be with him who

deals perhaps with base metals, rather than with him who deals with the problems of human life.

The second difficulty in the making of a specialist is that there is no standard of requirement; certainly no enforced requirement anywhere. Left to drift without the enforcement of some plan for some required length of time, the post-graduate student naturally chooses the worst possible plan of preparation, and often honestly believes he is thereby thoroughly prepared, when in fact he has no adequate preparation at all.

A comparison of the results of American-made and foreign-made specialists seems opportune at this time. The product of either continent is probably about equal provided the student is equal to the opportunities offered. The average American specialist who has received the whole or the chief part of his training on the continent of Europe, is I believe, inferior to the one who has spent an equal time in post-graduate study at home. The difficulty as to foreign study is that the American born student is seldom a linguist and unless he goes abroad with an already acquired ground work of the languages he is to hear, and then settles himself down for a number of years in the arduous task of actually learning that language, the result of his effort is usually more or less pathetic. The clinics of Germany provide numerous instances of American students who are there for a few weeks only, who know barely enough German to direct a cab driver, who too often have little ground work on which to build up special knowledge, and who go from the clinics of one city to another in the vain hope of absorbing something, perhaps, of the special knowledge they seek. The German clinician, as a rule, takes little interest in the student who comes to him for only a few days or weeks. It is only those who remain a long time, who show some proficiency in both the language and the work that really get close enough to the professor to make the task worth while. There are, of course, many American students who, by long arduous honest effort, return to America well qualified to undertake the work of the specialist; but the fact remains that far too many go abroad who gain little more than a record for having studied in Europe. The schools of Great Britain, while not all that they could be, offer better opportunity to the student speaking English only than do the continental clinics, and hence, if our graduate students must go abroad, an English school should be chosen. Meanwhile some of our American post-graduate schools are making honest effort to give advanced work to those only who are prepared to receive it, and indications are not wanting that these institutions may in the near future surpass those in foreign countries.

The time may not yet be ripe to enforce anything definite concerning a legal qualification for those who desire to pose as specialists, but certainly the present status of such preparation is such as to demand agitation looking toward betterment. Dr. Geo. E. Shambaugh, of Chicago University, has stated it as his belief that the university should control medical schools everywhere, not only in undergraduate study, but also in all post-graduate effort, and believes that were the universities in complete control of all medical education, it would be an easy and perfectly natural step to enforce attendance of the would-be specialist on an adequate course of study leading to a somewhat uniform standard of qualification. Dr. John B. Murphy, in his introduction to the 1912 volume of surgery, Practical Medicine Series, makes the following statement concerning the desirability of legal regulation of the post-graduate student of medicine: "The clinical arenas of the world are being more frequently visited by the surgical student and practitioner. The necessity for a law specifically authorizing and controlling the type and degree of education and practical experience which a man must have if he is to practice a specialty, as surgery, gynecology, ophthalmology, etc., is rapidly becoming recognized and soon will be demanded by the profession and public. Both would be benefited thereby."

Various remedies have been suggested for improvement in the plan of educating the specialist. As already quoted, Dr. Schambaugh thinks turning over medical educational problems entirely to the leading universities would solve the question. Dr. John B. Murphy suggests regulation by law, while still others think the existing post-graduate schools should enforce a high educational requirement for entrance, should demand an adequate course of study on the part of all matriculants, and should refuse to give a certificate of any kind except in case the student meets the entrance requirement and has attended the required amount of time in such school. All of these forces for possible good may be necessary to bring about satisfactory results, but it seems to me, that, whatever is done, the influence of the same powers that brought order out of chaos in the undergraduate schools must be secured. I refer to the Medical College Association, to the Council on Medical Education of the American Medical Association and to the Carnegie Foundation. All these influences, if secured in the commendable work of bettering the preparation of the specialist would in a few years bring about results that would be commended by both profession and public, because helpful to both.

BRONCHOSCOPY AND ESOPHAGOSCOPY *

ALBERT E. BULSON, JR., B.S., M.D.

FORT WAYNE, IND.

It has been less than fifteen years since Killian first demonstrated the possibility of removing a foreign body from a bronchus by what is known as upper bronchoscopy. In accomplishing the result an illuminated metal tube of proper size was passed through the mouth, larynx, trachea and into the bronchus where under illumination and direct inspection of the operator the foreign body was removed by an appropriate instrument.

Later Killian demonstrated that lower bronchoscopy, which differs from upper bronchoscopy in that the tube is passed through a tracheotomy wound, could be successfully employed in more deeply exploring the bronchi and branches, and that it was applicable in a certain number of cases in which upper bronchoscopy does not give satisfactory results.

It has been less than ten years that the principles of bronchoscopy have been applied to the examination and removal of foreign bodies from the esophagus, and it has been scarcely five years since the same principles have been adopted in making a direct inspection of the stomach and removal of foreign bodies therefrom. It may be said also that it has been within the last five or six years that bronchoscopy, esophagoscopy and gastroscopy have been considered and adopted by any considerable number of physicians, though as Jackson, the father of bronchoscopy and esophagoscopy in this country, and the originator of gastroscopy, has said, "the time has come when not only the profession, but also the public demands that every laryngologist shall be expert at the removal of foreign bodies from the trachea, bronchi, esophagus and stomach. The day has come when the treatment of diseased organs, especially chronically diseased organs, without looking at them, is regarded as a groping in the dark that is permissible only in organs that cannot be safely examined."

To those who may think that foreign bodies in the esophagus and bronchi are of uncommon occurrence it may be interesting to know that Jackson (*Jour. A. M. A.*, Sept. 25, 1909) says that in five years 105 fatalities from foreign bodies in the air and food passages were reported in America. It is quite possible that the unreported fatalities would multiply this number many times. Within the last twenty years I

* Read before the Tenth District (Indiana) Medical Society, at Hammond, Nov. 20, 1912.

have known of not less than ten cases of foreign body in the air or food passages, mostly of the former, with fatal results, not one of which was reported. It is evident then that there is a high mortality rate in these conditions and that the cases are not especially uncommon.

The examination of the air and food passages by the direct method requires an instrumentarium and a technic that almost discourages the beginner, and yet with the rapid advance of the study and application of the procedure it is confidently thought that simplification will come with improved apparatus and advanced methods of operating. The time will not come, however, when the procedure will cease to tax the ingenuity, dexterity and judgment of the operator, no matter how skilled, and the endurance and apprehension of the patient.

Of instruments for the performance of bronchoscopy and esophagoscopy it has been said that there are more than there are foreign bodies for the removal of which the instruments have been devised. Certain it is that the beginner in the work will find at times that he does not have too many instruments nor too much of an assortment, no matter how large the instrumentarium, though with increasing experience and improvement in technic it is found, as has been pointed out by Jackson, that good work can be done with an equipment more limited than that recommended by the earlier text-books and brochures on the subject. Bruning says that a complete endoscopic outfit does not exist, and that therefore any selection of instruments must of necessity be a compromise. But it is admitted by Bruning as well as others of extended experience that fully nine-tenths of the cases that come to the average operator may be cared for in a satisfactory manner with any one of the standard bronchoscopy and esophagoscopy sets.

Of instruments there are two general types, those that are lighted from the proximal end and those lighted from the distal end, each type having its advocates and each having its advantages and disadvantages. Those lighted from the proximal end may have the source of illumination from an electric head lamp, or from an electric bulb attached to the instrument and properly focused and reflected by lenses and mirrors.

Of headlamps, the Kirstein is generally recognized as the best, as the parallel rays of light are projected in a straight line parallel with the line of vision by a perforated mirror adjusted directly in front of the eye. Its use, however, presupposes much practice and skill in adjusting and using the lamp, and except in the hands of

one accustomed to its use it does not give satisfactory illumination. In the hands of Killian and his followers the use of the Kirstein lamp in bronchoscopic work has reached its highest state of perfection and is quite superior to other forms of illumination for them.

The lamp attached to the proximal end of the instruments, as illustrated in the Bruning, Kahler, and some other types, are very satisfactory to the average operator, and especially for working at short distances. They have the advantage of being ready at hand for cleaning, replacement and focusing, though they have the disadvantage of losing light through distance, bubbles of secretion and disturbed reflection of the inner surface of the tube by blood or secretions.

When the light is at the distal extremity of the tubes no illuminating power is lost through distance, though there is the disadvantage of having the lamp frequently obscured by blood or secretions, thus requiring their frequent cleaning and often their removal, with consequent loss of valuable time. For deep work, as in the smaller bronchi and in the stomach, it is, despite its disadvantages, almost essential for satisfactory illumination and accurate work. This form of illumination is preferred by Jackson, Ingals and some other well-known American operators of skill and experience. Personally, I prefer the illumination at the proximal end, supplementing the fixed light on the instruments by use of the Kirstein lamp, when necessary, on account of burned-out lamps, interference with the passage of instruments through the tubes, or unsatisfactory illumination from any cause. Recently I have secured a Jackson set with illumination at the distal end of the tubes, to supplement my Kahler set, which is illuminated at the proximal end of the tubes.

The tubular or split spatula, whether illuminated or not, is used for direct laryngoscopy and also for the very important purpose of acting as a guide for the bronchoscopic or esophagoscopic tubes. In most instances the spatula and handle are removed after the tubes have entered the trachea or the esophagus, as the case may be.

The tubes are of different length and different size to meet the varying requirements of age, and the depth to which exploration is to be extended. For bronchoscopy the tubes are 7 to 9 mm. in diameter and 14 to 50 cm. long. For esophagoscopy the tubes are 11 to 13 mm. in diameter and 18 to 50 cm. long. To meet the varying size and length of the passages some operators use a large variety of tubes. Killian, for instance, uses eighteen different sizes of tubes,

nine of which are for bronchoscopy and nine for esophagoscopy. Jackson says that good work may be done with two tubes and a speculum, one of the tubes being a medium size bronchoscopy tube and the other a medium size esophagoscopy tube, a statement to which Bruning takes exception. Unless rigid economy is to be practiced, it is advisable to have at least two of each kind of tubes, together with extensions, and two spatulae, with universal handle. This will at least permit of more satisfactory results in operating on patients of varying ages. These tubes should have the diameter and length marked on them, as also a centimeter scale for the purpose of knowing how far the tube has been introduced during operative work.

In peroral endoscopic work it is well to remember the approximate dimensions of the esophagus and the tracheobronchial tree. As given by Jackson, they are as shown in the table below.

| | Adult Male | Female | Child | Infant |
|------------------------------------|------------|-----------|-----------|----------|
| Diameter of trachea..... | 14x20 mm. | 12x16 mm. | 8x10 mm. | 6x7 mm. |
| Length of trachea..... | 12.0 cm. | 10.0 cm. | 6.0 cm. | 4.0 cm. |
| Length of right bronchus..... | 2.5 cm. | 2.5 cm. | 2.0 cm. | 1.5 cm. |
| Length of left bronchus..... | 5.0 cm. | 5.0 cm. | 3.0 cm. | 2.5 cm. |
| Length upper teeth to trachea.... | 15.0 cm. | 13.0 cm. | 10.0 cm. | 9.0 cm. |
| Diameter of esophagus (average)... | 17x23 mm. | 15x20 mm. | 11x15 mm. | 7x10 mm. |
| Length of esophagus..... | 25.0 cm. | 21.0 cm. | 16.0 cm. | 12.0 cm. |
| Length teeth to cricoid..... | 15.0 cm. | 14.0 cm. | 10.0 cm. | 9.0 cm. |

These measurements are taken from the cadaver and do not take into account the dilatibility of the trachea and the amount of yielding of the membranous posterior wall, nor do they take into account the marked elasticity of the esophageal walls. In fact, Jackson says that the extreme elasticity of the esophageal walls permits of stretching the normal adult esophagus to over two centimeters without rupture, though this is not available for esophagoscopy. For practical purposes a 7 mm. tube for infants and a 10 mm. tube for adults should pass freely, though in some cases considerably larger tubes may be used.

A good mouth gag, two hooks for foreign bodies, a dozen sponge carriers, and at least two forceps, each with interchangeable end pieces, are also necessary. An aspirating syringe, with drainage tubes and bottle, is required for the removal of secretion, and a tracheotomy set should be at hand for use in case of emergency. The outfit will be more complete by the addition of several other good instruments, but those mentioned will suffice for all ordinary work.

Bronchoscopy and esophagoscopy are hospital operations and in consequence other requirements are at hand, including the electric current for illuminating lamps. Concerning this latter considerable difference of opinion exists. Bruning

sanctions the use of commercial circuits controlled by rheostat, but emphasizes the importance of having the patient on a wooden chair or table and the operator standing on wood, linoleum or some other non-conductor of electricity, and for the reason that an ordinary 110 volt commercial current when coming in contact with the mucosa of trachea, bronchus or esophagus is very apt to prove fatal if the current is grounded. Jackson positively condemns as dangerous the use of commercial currents, and recommends storage batteries. In my personal experience I have noted the possible danger of the commercial current, for though I have two or three excellent rheostats for controlling the current when using miniature lamps I not infrequently experience a shock when using electrically-lighted instruments. With the advent of small tungsten bulbs consuming a minimum amount of current it is now possible to secure small dry cells that are

inexpensive and satisfactory for furnishing the required current.

Except in children under 10 years of age, local anesthesia is the anesthesia of choice among the majority of experienced operators. Cocain has demonstrated its superiority as a local anesthetic, and is used in 10 to 20 per cent. solutions, its best mode of application being by swab.

Bruning points out that there is no such thing as a maximum dose, in the proper sense, for local anesthetics, and he cites the experiment in which a rabbit is killed at once by an intravenous injection of 0.1 gram of a concentrated solution of cocain, whereas the injection of ten times that amount of cocain diluted with 100 c.c. of normal salt solution produces no such effect. He also points out that when the stomach is full, the amount of cocain absorbed is considerably greater owing to increased irritability of the mucous membrane. If possible, therefore, cocain should be used when the stomach is empty. Children are peculiarly sensitive to cocain and all narcotics, and in consequence great care must be exercised in using local anesthetics.

Concerning general anesthesia the consensus of opinion is that the best results are obtained in bronchoscopy and esophagoscopy by means of combined anesthesia with a minimum use of

cocain. Ether causes hyperemia of the mucous membrane and an increase of secretion, and in consequence chloroform is preferred. The special reflexes of the air and food passages must be suppressed by local anesthesia for the reason that any general anesthesia which abolishes these reflexes becomes dangerous.

The combination of oxygen and chloroform is especially preferred by many German operators for inducing general anesthesia. In bronchoscopy and esophagoscopy it is especially valuable inasmuch as a far greater amount of obstruction or stenosis of the air tract may exist and the patient not require a tracheotomy than would be the case if ether were administered, and oxygen alone may often save a life that otherwise might succumb to the stenosis produced by the edema or reactive swellings.

Quite recently Jackson (*Laryngoscope*, October, 1912) says that no anesthesia, either general or local, is required for either children or adults for the majority of cases of direct laryngoscopy, bronchoscopy or esophagoscopy. He upholds Bruning (*Bronchoscopy*, 1912 edition) in the statement that the operator who is not sufficiently practiced to pass the tubes without general anesthesia is not justified in using general anesthesia to overcome faults in technic. However, not all of us are fortunate enough to have the experience or the skill of Bruning or our brilliant American confrère, and even if we had it is questionable if we would decide to so largely dispense with any kind of an anesthetic as urged by Jackson. To forcibly hold a frightened and struggling child, or to ask a nervous and apprehensive adult to submit to a peroral endoscopic examination or operation, without using any anesthetic of any kind whatsoever, does not seem to me to be the humane and judicious way of managing these cases even though it can be done. Even though we all could have perfect technic, the advisability of following Jackson's advice is seriously questioned. For my part I believe that in children a general anesthetic is always indicated, and for adults local anesthesia can seldom be omitted if discomfort and in many instances actual pain are to be avoided.

Under general anesthesia the patient is operated in the recumbent position, with the shoulders slightly overhanging the edge of the table and the assistant supporting the head, which is bent backward, while the neck is raised so that the axis of the passage through which the tube is to pass is as near straight as possible. Under local anesthesia the patient may be operated in the sitting posture.

In introducing the spatula and tubes care should be exercised to have the traction on the base of the tongue and the hyoid tissues, and the upper incisors must not be used as a fulcrum. All tubes should be lubricated on the outside, but their inner surface should be perfectly clean for the purpose of reflecting the light rays and aiding illumination.

Aside from the value of direct laryngoscopy, tracheo-bronchoscopy and esophagoscopy in locating and removing foreign bodies under direct inspection, the procedures have a wide range of usefulness in the diagnosis and treatment of various diseased conditions. Thus cases of goiter that complain of dyspnea should have a tracheoscopy. Cases complaining of difficulty in swallowing should have an esophagoscopy to determine why they cannot swallow. Various malignant and benign neoplasms as well as ulcerations, stenoses and inflammations of the air or food passages may be better examined and more successfully treated under direct inspection by peroral endoscopy.

Foreign bodies in the larynx, trachea, bronchi or esophagus are more promptly, more safely and less painfully removed by endoscopic methods than by any other means. A radiograph should be taken in all cases if conditions will permit, and in most instances it is advisable to have the radiograph interpreted by the roentgenologist. The radiograph gives the operator definite information as to the location of the foreign body, its position with respect to surrounding structures, and in a general way some idea as to the kind of instruments to be used for its extraction. Thus in the case of a safety-pin lodged in the trachea or esophagus it is a valuable aid to know the exact depth at which the pin will be found, whether it went down open or closed, and if open to know the direction of the point.

Most foreign bodies will throw a shadow, and even spicules of bone and occasionally vegetable substances like peas or beans often will throw a shadow that can be recognized by the expert roentgenologist, providing they do not lie directly in the line of some part of the bony framework of the body. The shells or hulls of hard-shelled nuts usually throw radiographic shadows. A negative radiograph should not deter the operator if the history and clinical symptoms point with reasonable certainty to the presence of a foreign body. An exception to this would be a case in which a metallic or other dense substance, supposedly lodged in the air or food passages, fails to show on a technically good radiograph.

The patient who has been subjected to peroral endoscopy, and particularly one on whom efforts have been made for the extraction of a foreign body by peroral endoscopic manipulations, should be very carefully watched for several hours after operation, as the trauma produced by the foreign body or by the efforts at extraction may result in swelling of the mucosa with alarming or even fatal asphyxia. An opportune tracheotomy, or, as pointed out by Bruning, the inhalation of oxygen for a few hours when the lumen of the air passages has been temporarily constricted by edema, may result in saving the life of a patient that otherwise would be lost.

Two cases, owing to age and rather unusual features, are deemed worthy of report.

CASE 1.—O. H., 2 years of age. Referred to me by Dr. F. E. Radcliffe, of Bourbon, and Dr. W. A. Price, of Nappanee. Three weeks previously while playing in the corn crib the child began crying and coughing, but was soon quieted, and it was not thought that anything particularly unusual had occurred. Three days later the child had a severe coughing spell in the night and coughed up a small kernel of corn. The child continued to have a slight cough, and two weeks later the temperature rose to $104\frac{1}{2}$, but subsided in a few days. Patient had lost appetite, lost in weight and become listless. No cyanosis at any time, but more or less continuous cough. Chest examination disclosed nothing by percussion, but by auscultation whistling râles could be detected over the right bronchus. From the fact that the little patient had coughed up one kernel of corn it was thought that possibly there might be a second kernel lodged in the air passages. At Hope Hospital, under ether anesthesia, upper bronchoscopy was attempted, but owing to difficulties encountered from mucus, inability to discover anything in the trachea, and finally cyanosis, a tracheotomy was performed, after which, by lower bronchoscopy, a large kernel of corn was seen in the right bronchus immediately below the bifurcation where it was seized with forceps and removed together with the tube. After twenty-four hours the tracheotomy tube was removed, the localized bronchitis subsided, and the child made an uneventful recovery. The interesting feature in the case is the fact that the little patient had inspired two kernels of corn, one of which had been coughed up, and the other remained to provoke sepsis, very active bronchial inflammation and impairment of the general health.

CASE 2.—J. C., aged $2\frac{1}{2}$ years. Referred to me by Drs. H. A. Duemling and E. H. Underwood, of Fort Wayne. Fourteen months previously the child swallowed a quarter and had a severe choking spell which finally subsided, but recurred a few hours later, and then subsided

with no other symptoms for eight months when he began to have attacks of what the mother called "stomach trouble," inasmuch as the child complained of pain in the stomach and would vomit frequently. Appetite good and nutrition apparently unimpaired. Finally the child had such an unusual amount of pain and so much vomiting that a radiograph was taken which showed the presence of the quarter in the esophagus, located just opposite the fourth rib. Under general anesthesia at the Lutheran Hospital the quarter was removed by peroral endoscopic measures.

There are several interesting features in connection with the case. In the first place the esophagoscope passed the quarter which was firmly wedged against the wall of the esophagus and went down into the stomach without discovering anything more than an enormous quantity of slimy mucus and blood. On withdrawing the esophagoscope and carefully shifting the position in various directions the edge of the blackened quarter was finally seen, but several attempts to remove the foreign body with forceps ended in failure, as the quarter was firmly imbedded in the mucosa and the forceps slipped each time traction was exerted. Finally, by means of a lateral motion the quarter was shifted from its position and removed along with the esophagoscope. Considering that a quarter is 24 mm. in diameter and that the maximum diameter of a 1-year-old child's esophagus is 10 mm., it will be readily understood that the distensibility of the esophagus is great to account for the passage of a foreign body the size of a quarter. The child has made an uneventful recovery.

PHENOLSULPHONEPHTHALEIN AS A DETERMINATE OF KIDNEY FUNCTION*

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Functional kidney tests originated, were developed and have multiplied because it has been definitely proven that, in health, the kidneys will perform a definite amount of work. This fact has made possible the fixation of a standard of work to which, under normal conditions, the kidney will conform. The kidney-function standard being known, it becomes possible to compare the work done by diseased kidneys and to estimate this work.

The two chief functions of the kidney are, first, to separate from the blood the various substances

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carried to it for elimination, and second, to pass these substances into the urine. The exact procedures by which the kidney accomplishes these two functions are still matters of theory and speculation. Ludwig claims that the separation of the urine from the blood is accomplished by a process intimately concerned with filtration and osmosis. Bowman-Heidenhain asserts that the kidney exerts a selective absorption on certain substances brought to it, and that the amount of these substances absorbed and excreted, representing the amount of work done by the kidney, can be estimated.

Albarran and Kapsammer have shown that differences do exist in the amount of work done by any kidney at any given time, if the observation is made for a short time only. The possibility of error in estimating the amount of work done by the kidneys decreases materially as the time of observation is increased.

Kidney function in diseased kidneys varies greatly, depending on the pathologic processes present and these changes in function may be associated with or totally independent of any anatomical variation, macroscopically or microscopically demonstrable. These changes can usually be detected by the routine chemical and microscopical urinalysis plus the clinical examination. The quantitative estimation of the substances present is made to obtain a better understanding of the pathology or the severity of the disease.

Von Noorden has shown that quantitative metabolic data are unreliable in many instances, and that a knowledge of kidney function and activity is desirable.

One of the so-called dye tests for kidney function should be used in conjunction with the ordinary urinalysis, clinical examination and history. These dye tests, in order to be of value, should fill a definite list of requirements as closely as possible. Geraghty has outlined these requirements as follows: "A test for kidney function (1) should indicate a constant amount of work performed by all normal kidneys under normal conditions; (2) should indicate constant variations in function where abnormal conditions exist; (3) should indicate functional alterations, independent of the histologic appearance, where such conditions obtain; (4) should afford an indication of the absolute work accomplished as well as the relation of this to the normal standard under all conditions; (5) should have a simple technic; (6) should be applicable without injury to the patient or without exerting extra functional strain on the kidney itself; (7) the result of the application of the test should be easy of

CHART 1.—NORMAL CASES; DYE GIVEN SUBCUTANEOUSLY

| No. | Diagnosis | Delay in Minutes | | Amt. Urine in c.c. | | Per Cent. of Dye | | Chemical and Microscopic Findings | Blood-Pressure Systolic | Urea, Per Cent. | Method | Remarks |
|-----|--|------------------------|-------|--------------------|-------|------------------|-------|-----------------------------------|---------------------------|-----------------|----------------------------|---|
| | | 1 h. | 2 h. | 1 h. | 2 h. | 1 h. | 2 h. | | | | | |
| 1 | Specific urethritis. | 8 | 105.0 | 60.0 | 50.0 | 20.0 | 20.0 | Negative. | 100 | 1.5 | Vesical catheter. | |
| 2 | Specific urethritis et vaginitis. | 10 | 120.0 | 120.0 | 37.5 | 8.0 | 8.0 | Negative. | ... | 1.5 | Vesical catheter. | |
| 3 | Specific urethritis; urethral stricture. | 7 | 37.0 | 30.0 | 40.0 | 17.5 | 17.5 | Negative. | 112 | 2.0 | Vesical catheter. | |
| 4 | Urethral stricture. | 9 | 45.0 | 120.0 | 45.0 | 15.0 | 15.0 | Negative. | 120 | 1.7 | Vesical catheter. | |
| 5 | Urethral stricture. | 9 | 30.0 | 30.0 | 40.0 | 15.0 | 15.0 | Connective tissue. | 110 | 1.5 | Vesical catheter. | |
| 6 | Acute appendicitis. | 11 | 45.0 | 50.0 | 42.0 | 18.0 | 18.0 | Negative. | 142 | 1.5 | Vesical catheter. | Test made after operation; sugar present before operation. |
| 7 | Cholelithiasis. | 10 | 15.0 | 45.0 | 18.0 | 40.0 | 40.0 | Negative. | 108 | 1.8 | Vesical catheter. | Test made two months after operation. |
| 8 | Pregnancy 4th month. | 3.5 | 100.0 | 30.0 | 40.0 | 8.0 | 8.0 | Negative. | 125 | 1.8 | Vesical catheter. | Thirty-five per cent. of dye recovered from both kidneys in forty-five minutes; color collection appeared equal from each kidney. |
| 9 | Same as Case 8 (after labor). | R. K. 2.5 L. K. 4.5 | ..... | ..... | ..... | ..... | ..... | Negative. | S. 130 D. 108 P. 22 | ... | Both ureters catheterized. | |

interpretation; (8) the test should be able to indicate the reserve force of the kidney when under strain, as well as the amount of work done under normal conditions."

The estimation of kidney function in order to give reliable findings, should determine the work done by both kidneys and also the work done by each kidney separately. Where the work of each kidney is desired, Albarran's polyuria test is also of value.

With a full realization that all dye tests for the determination of kidney function are subject to one shortcoming, namely, that an arbitrary standard for the kidney is created, I will take up the consideration of phenolsulphonephthalein as a determinate of kidney function.

Phenolsulphonephthalein is a member of the phthalein family and was first prepared by Remsen. This dye was first used as a functional renal test by Geraghty and Rowntree some time ago. The substance is a bright-red powder somewhat soluble in water, more so in alcohol, but insoluble in ether. It is supplied in ampule form, the usual dose, 6 milligrams, being equal to 1 c.c. of the solution furnished. The drug, according to all of the data on the subject, seems to be eliminated by the kidneys exclusively, and Geraghty asserts that the renal tubules alone excrete phenolsulphonephthalein and that the glomeruli are little concerned, if at all. I have been unable to find his proofs for this statement.

TECHNIC OF THE TEST

The drug may be given subcutaneously, intravenously or intramuscularly. When given intravenously, the drug appears in the urine of apparently normal individuals in from two and one-half to four minutes, as may be shown by the following procedure: A few drops of a 25 per cent. solution of sodium hydroxid are placed in a test-tube and a catheter passed into the bladder and the urine decanted down the side of the test-tube. When the drug begins to be eliminated at the point of contact of the urine and sodium hydroxid solution a light-red ring will appear, which increases as the further elimination of the drug occurs. When given subcutaneously, Geraghty claims that the ring appears in from seven to twelve minutes, but when administered by the intramuscular method twenty minutes may elapse before elimination begins.

In cases where it is desirable to use the mixed or bladder urine the patient voids the urine, which is kept and a chemical and microscopical examination made thereof. Then a soft-rubber catheter is passed, under aseptic conditions, to the bladder and the end of the catheter is allowed

to drain into a test-tube containing a few drops of the sodium hydroxid solution. Then 1 c.c. of the ampule solution of phenolsulphonephthalein is given, either intravenously or subcutaneously and the appearance time of the drug noted.

Two methods of procedure are now open: after the appearance ring has formed the catheter may be withdrawn and the patient voids the urine in exactly one hour from the time the ring appeared and again after one hour. By the second plan the catheter is passed at the end of one and two hours, respectively, from the time the color ring formed. In cases of prostatic hypertrophy with a large amount of residual urine, the catheter may be tied in the bladder and the test carried out as usual. In cases where only a small amount of residual urine is present, the catheter may be passed at the end of the first and second hours, and the urine collected.

When the ureters are catheterized it is preferable to inject the dye intravenously, because, first, the drug will begin to be eliminated sooner and, second, the elimination will be completed in one hour. When the drug is given subcutaneously, two hours are needed to eliminate it from the body.

According to Geraghty, from 40 to 60 per cent. of the dye should be eliminated in the first hour, and from 10 to 20 per cent. the second hour, when injected subcutaneously, and from 60 to 80 per cent. in one hour when given intravenously. The percentage of the drug can be estimated by Geraghty and Rowntree's modification of the Hellige colorimeter very accurately, but this apparatus is quite expensive. Several other colorimeters are at present on the market, Dunning's being one of the best. Following Cabot's idea, I have arranged a series of test-tubes, ten in number, containing distilled water solutions of phenolsulphonephthalein. These solutions, beginning with 5 per cent. increase, 5 per cent. with each tube, and thus the maximum tube contains 50 per cent. of the dye in distilled water. Any unknown solution of the drug exceeding the maximum can be diluted so that a reading between 5 and 50 per cent. can be obtained and then readjusted to secure the correct reading by computing the dilution which was made. These tubes I have mounted on a small stand in order to facilitate the percentage readings. The color in the tubes fades rather quickly, but I have found that by using rubber stoppers for the test-tubes and then coating the tops with melted paraffin I can retain the color for a longer period.

The amount of urine obtained during the first hour, if the test has been made by the intravenous

method, is measured, and if desired, a small portion may be used in making a chemical and microscopical examination, although it is preferable to use another specimen.

The urine obtained during the first hour is diluted to one liter, using distilled water preferably, and a few c.c. of the sodium hydroxid solution added. A test-tube of this solution is then compared with the colorimeter and the amount of dye excreted thus estimated. It is helpful to place a white card behind the tubes to be compared. It is possible in using this colorimeter to estimate the percentage of the drug within 2.5 per cent. I have considered it unnecessary and inconvenient to force the water intake by having the patient drink 200 or 300 c.c. of water. In the instances I have tried this I have failed to notice any appreciable difference in the amount of dye excreted. I have taken the blood-pressure in the majority of the cases, just previous to the administration of the drug.

The cases have been taken from the surgical service of Dr. J. R. Eastman at the Joseph Eastman Hospital, and from my own private work. The cases were operated on by Dr. Eastman, to whom I wish to express my thanks for the use of the material before and after operation.

Phenolsulphonephthalein was used in eight normal cases, that is, in patients who, by clinical examination plus macroscopical and microscopical urinalysis, did not show any renal disturbance. Of these eight normal cases, three were cases of specific urethritis, one patient having a prostatitis in addition. The only female in the series had a bilateral salpingo-oöphoritis. The test was used in two cases having urethral strictures. There was one case of gangrenous appendicitis in this series which exhibited sugar in the urine at the time of operation, but this had disappeared when the test was made. Also one case of cholelithiasis was tested after operation. I used the test on a patient who was two months pregnant, using the catheter method, and then after the labor had occurred I catheterized her ureters and used the test again.

In the normal cases the appearance time of the dye varied from two and five-tenths to eleven minutes, the shortest time being found in the patient who was two months pregnant, and the eleven-minute delay occurring in the operated gall-bladder patient. The amount of urine excreted during the first hour varied from one-half to 4 ounces, and for the second hour from one-half to 3 ounces. The percentage of the dye excreted the first hour was from 18 to 45, and the second hour 8 to 40, the total varying from 48 to 70. The average amount of phenolsulphonephthalein

CHART 2.—CASES PRESENTING RENAL DISTURBANCES; DYE GIVEN SUBCUTANEOUSLY

| No. | Diagnosis | Delay in Minutes | Amt. Urine in c.c. | | Per Cent. of Dye | | Chemical and Microscopic Findings | Blood-Pressure | Urea, Per Cent. | Method | Remarks |
|-----|---|----------------------|--------------------|------|------------------|------|--|---------------------------|-----------------|----------------------------|--|
| | | | 1 h. | 2 h. | 1 h. | 2 h. | | | | | |
| 1 | Exophthalmic goiter. | Not taken. | 90.0 | 90.0 | 10.0 | 20.0 | Red blood-cells. | S. 170 D. 134 P. 36 | 1.6 | 2-hour collection. | Stamm polar ligation done. |
| 2 | Cholelithiasis (markedly cholemic). | 14.5 | 30.0 | 22.0 | 17.5 | 8.0 | Albumin positive; pus-corpuses; renal epithelia; hyaline and granular casts. | S. 140 D. 124 P. 16 | 1.0 | Vesical catheter. | Test made before operation. |
| 3 | Same as Case 2. | 8 | 30.0 | 30.0 | 25.0 | 15.0 | Albumin positive; pus-corpuses; renal epithelia; hyaline and granular casts. | S. 140 D. 120 P. 20 | 1.0 | Vesical catheter. | Test made three weeks after cholecystostomy. |
| 4 | Either kidneys, following laparotomy. | 21 | 15.0 | 15.0 | 12.0 | 8.0 | Albumin positive; pus-corpuses; renal epithelia. | ..... | 1.0 | Vesical catheter. | Pure culture of staphylococcus albus recovered from blood. |
| 5 | Extensive urethral stricture. | Not taken. | 60.0 | 30.0 | 22.5 | 12.5 | Albumin positive; pus-corpuses; renal epithelia. | S. 135 D. 113 P. 20 | 1.0 | 2-hour collection. | First test before operation. |
| 6 | Same as Case 5. | Not taken. | 45.0 | 30.0 | 7.5 | 7.5 | Albumin positive; pus-corpuses; renal epithelia. | ..... | 1.0 | 2-hour collection. | Operated; uneventful convalescence. |
| 7 | Right renal sarcoma; renal calculi, pelvis. | 15 | 90.0 | 60.0 | 40.0 | 10.0 | Albumin positive; pus-corpuses; B. coli. | S. 140 | 1.0 | Vesical catheter. | Right nephrectomy, pus coming from right ureter; left ureter normal. |
| 8 | Bilateral pyelonephritis. | L. K. 14 R. K. 17 | 15.0 5.0 | .... | Trace. 1.0 | .... | Left kidney: Albumin positive; pus-corpuses; renal epithelia. Right kidney: Albumin positive; pus-corpuses in large amount; renal epithelia; cretated R. B. C. | S. 130 D. 110 P. 20 | B.2.0 | Both ureters catheterized. | Right ureteral meatus reddened; left meatus apparently normal; urine collection made for 25 minutes. |

for the first hour was 39 per cent. and for the second hour was 17 per cent., the average for the two hours being 56 per cent. The systolic blood-pressure varied from 108 to 142.

In the series presenting renal disturbances the following conditions were present: six cases of varying degree of prostatic hypertrophy; one case of bilateral pyelonephritis; two tests on a case of cholelithiasis, one test before and one after operation; ether kidneys, following a laparotomy; sarcoma of the right kidney, accompanied by six pelvic calculi; a case of extensive urethral stricture, and a case of exophthalmic goiter.

There were two cases in this series in which the appearance time was not noted for obvious reasons. One was a case of multiple urethral strictures in a patient having high pain values. It was impossible to pass the catheter to the bladder, so the customary two-hour collection was made. The second case was one of marked exophthalmic goiter having a blood-pressure of 160 to 190, with great emotional excitement and sufficient cardiac disturbance to warrant putting her to bed for a complete rest. In this case a two-hour collection of urine was made following the administration of the dye.

The cases having definite renal changes had an appearance time which varied from two and one-half to twenty-one minutes. The quantity of urine for the first period of collection ranged from one-half to 3 ounces, and the second period from one-half to 2 ounces. The percentage of the dye eliminated the first hour varied from 12 to 50, and the second hour from 5 to 22. The average output for the first period was 24 per cent., and for the second was 10 per cent., the total output for two hours being 34 per cent. The blood-pressure, systolic, ranged from 115 to 140.

I will consider the six prostate cases in one series. In the instance of Mr. B., the dye was given intravenously, and did not appear for fifteen minutes, the total quantity excreted in two hours being only 25 per cent., the first hour's elimination being 20 per cent. This man presented convoluted tubule cells, pus corpuscles, many red blood-cells in the urine. Yet his general health was good and he was operated on and a median-bar enlargement of the prostate removed. This man was much improved by his operation and had no trouble during his convalescence.

Mr. T., presenting a median-bar enlargement of the prostate, was given 6 milligrams of phenolsulphonephthalein intravenously and excreted only 18 per cent. of the drug during the first hour and 7 per cent. the second hour. After several days of forced water, lemonade, etc., and

cystogen, the test was again made. This time he again eliminated 18 per cent. of the dye the first hour, and an increase of 5 per cent. was made during the second hour over that of the previous test, now being 12 per cent. The microscopical examination of this patient's urine showed renal cells in moderate amount, with a few prostatic and bladder epithelia and a moderate quantity of pus corpuscles. Albumin was positive, and the urea output was 1 per cent. This man's median bar was removed and a beneficial effect has in general occurred since the operation.

Mr. H.—Diagnosis: median-bar prostatic hypertrophy determined by cystoscopic and rectal examination. The systolic pressure was 170. Phthalein was given intravenously, appearing in three and one-half minutes; 17.5 per cent. of the dye was recovered during the first hour. Urinalysis showed albumin positive, moderate amount, many pus corpuscles, a few pelvic renal cells. This patient was operated, a transprostatic removal being done. Uneventful convalescence.

Mr. D.—Diagnosis: median-bar prostatic hypertrophy. Systolic pressure 120. Phthalein was given intravenously, the delay not being taken; 20 per cent. of the dye was excreted during the first hour. Urinalysis showed albumin positive, moderate amount, many pus corpuscles, a few renal cells. Transprostatic removal of gland done. Uneventful convalescence.

Another prostatic case, T. H., shows by urinalysis: albumin, 0.25 per cent.; pelvic renal cells and pus corpuscles in profusion; urea, 1 per cent. By cystoscopic examination a moderately enlarged prostate involving both lobes, with a low grade inflammation of the bladder was seen. The dye test gave 33 per cent. the first hour and 22 per cent. the second. Systolic blood-pressure, 130. This gentleman also has a large hydrocele in addition to his prostatic condition, but firmly refuses operation for both conditions since he claims to be quite comfortable.

I catheterized Mr. V.'s ureters and then gave him 6 milligrams of phenolsulphonephthalein subcutaneously. The color ring formed in six and one-half minutes from the urine of the right kidney, but did not appear from the left kidney for ten minutes. During the first hour the right kidney excreted 30 per cent. of the dye while the left only eliminated 10 per cent. There was a loss of 12 per cent. of the dye around the ureteral catheters during the first hour. The right kidney excreted 5 per cent. of the drug the second hour while the left delivered only 1 per cent., as nearly as could be estimated. Flute-end catheters were not used in this case, or leakage would not have occurred. Microscopical examination of the right kidney's urine showed pelvic, convoluted and straight tubule and ureter cells; albumin positive, casts negative and pus corpuscles negative. The urine of the left kidney exhibited many pus corpuscles, all varieties of kidney epithelia, al-

bumin positive, casts negative. Cystoscopic examination of this man's bladder revealed a markedly trabeculated bladder wall, moderate enlargement of the prostate. The ureter openings were apparently unchanged. This patient complained of pain in the left kidney area following the course of the ureter downward. Vesical capacity was 5 ounces when definite pain occurred. The general health of the patient was good.

Mrs. L.—Diagnosis: bilateral pyelonephritis; systolic pressure, 130. Cystoscopic examination: a few reddened areas scattered over the bladder surface, trigone seemed unduly reddened. Meatotomy: right meatus reddened and pouting, having a distinct red ring surrounding it; left meatus apparently normal. Both ureters catheterized, flute-end catheters being used. Rate of flow: right catheter, 1; left catheter, 2. Delay: left, fourteen and one-half minutes; right, seventeen minutes. The amount of urine obtained from the left kidney during thirty minutes was 15 c.c., but only about 1 per cent. of the dye was recovered. The right kidney delivered but 7.5 c.c. in thirty minutes, following the administration of the phthalein and only a trace of the dye could be observed. Urinalysis of the left kidney's urine showed a small amount of pus corpuscles, one or two renal cells. Urinalysis of the right kidney's urine showed a large amount of pus corpuscles, a few renal cells.

The first test made on a patient having gallstones gave a two-hour elimination of 25 per cent., the patient at this time being decidedly cholemic. The second test, made three weeks after operation, gave a percentage of 40 and reduced the appearance time of the dye from fourteen and one-half minutes to eight minutes. This woman shows by urinalysis: albumin, positive; urea, 1.8 per cent.; a few pus corpuscles; several hyaline casts, and a few pelvic and convoluted tubule cells.

Mrs. B., ten days after a laparotomy, developed a fluctuating temperature varying between 99.6 and 104.5, and complained of pain in the region of the kidneys, the left being especially sensitive. The pulse was 140 to 160, and a cardiac murmur was plainly audible, the patient also complaining of much respiratory distress. A septic endocarditis was diagnosed. A urinalysis disclosed the presence of a large amount of pus and albumin. The microscopical examination of the urine showed pus corpuscles in abundance, likewise renal epithelia of all varieties. Phenolsulphonephthalein was given subcutaneously and appeared in the urine in twenty-one minutes by the catheter method. During the first hour one-half ounce of urine was voided containing 12 per cent. of the drug, and 8 per cent. was recovered from the second hour's urine. A pure culture of *Staphylococcus albus* was obtained from the blood and an autogenous vaccine administered. This patient's kidneys eventually cleared up, and she returned home apparently well. There were no

CHART 3.—CASES WITH HYPERTROPHIED PROSTATES PRESENTING RENAL CHANGES

| No. | Diagnosis | Delay in Minutes | Amt. Urine in c.c. | | Per Cent. of Dye | | Chemical and Microscopic Findings | Blood-Pressure | Urea, Per Cent. | Method | Dye Given | Remarks |
|-----|--|------------------|-------------------------|----------------------|----------------------|--------------------|--|---------------------------------|------------------------|----------------------------|---------------|--|
| | | | 1 h. | 2 h. | 1 h. | 2 h. | | | | | | |
| 1 | Moderate bilateral hypertrophy of prostate; hydrocele; urethral stricture. | 9 | 45.0 | 37.0 | 33.0 | 22.5 | Albumin positive; pus-corpuscles; pelvic renal cells. | S. 130 | 1.0 | Vesical catheter. | Subcutaneous. | One ounce of residual urine. |
| 2 | Moderate bilateral hypertrophy of prostate; L. K. pyelonephritis; R. K. nephritis. | 10.0 6.5 | 15.0 37.5 B: 15.0 | 19.0 15.0 45.0 | 10.0 30.0 12.0 | 1.0 5.0 15.0 | Left kidney: Albumin positive; pus corpuscles; renal cells. Right kidney: Albumin positive; renal cells. | L. K. 1.0 R. K. 1.5 | L. K. 1.0 R. K. 1.5 | Both ureters catheterized. | Subcutaneous. | Ordinary catheters used, according for bladder leakage. |
| 3 | Median bar prostate. | 2.5 | 60.0 | 30.0 | 18.0 | 7.0 | Albumin positive; pus-corpuscles; renal cells. | S. 115 | 1.0 | Vesical catheter. | Intravenous. | First test made before operation. |
| 4 | Same as Case 3. | 2.5 | 60.0 | 30.0 | 18.0 | 12.0 | Albumin positive; pus-corpuscles; renal cells. | S. 118 | 1.0 | Vesical catheter. | Intravenous. | Second test made before operation; uneventful convalescence. |
| 5 | Median bar prostate. | 1.5 | 75.0 | 30.0 | 20.0 | 5.0 | Albumin positive; pus-corpuscles many; renal cells few; B. coli. | S. 118 | 1.5 | Vesical catheter. | Intravenous. | Test made before operation; uneventful convalescence. |
| 6 | Median bar prostate. | 3.5 | 90.0 | .... | 17.5 | .... | Albumin positive; pus-corpuscles; renal epithelia; calcium oxalate crystals. | S. 170 D. 142 P. 28 | 1.0 | Vesical catheter. | Intravenous. | Test made before operation; uneventful convalescence. |
| 7 | Median bar prostate. | Not taken. | 150.0 | .... | 20.0 | .... | Albumin positive; many pus-corpuscles; few renal cells. | S. 120 D. 108 P. 12 | 1.0 | Vesical catheter. | Intravenous. | Test made before operation; uneventful convalescence. |

symptoms relating to the abdominal cavity and the incision was completely healed.

An *x*-ray of Mr. R.'s right kidney showed renal calculi. This patient, a young man, had a large palpable mass in the right kidney area. He had lost considerable weight in the last year. Cystoscopic examination revealed a chronic cystitis, the bladder medium being extremely difficult to keep clear, owing to the constant stream of pus from the region of the right ureteral meatus, which I was unable to see. The left ureter opening was apparently normal. No ureteral catheterization was attempted because of the extreme pain present on any intravesical manipulation. The appearance of the dye test was fifteen minutes, and he eliminated 40 per cent. the first hour and 10 per cent. the second. Urinalysis showed positive albumin; urea, 1.5 per cent.; pus corpuscles, mucous threads. Calcium phosphate and many colon bacilli. The patient was nephrectomized, a large sarcomatous kidney containing six renal calculi being removed.

Mr. G.'s first dye test showed 22½ per cent. for the first hour and 12½ per cent. for the second hour. Following forced water, urotropin, etc., for three days, the second test was made. This time he eliminated only 7½ per cent. during each of the two hours of collection. While he was on the forced water he passed urine which was practically pure pus, and the urine seemed to contain a large amount of debris swept out by the forced water. Microscopical urinalysis showed many pus corpuscles, pelvic and convoluted tubule cells, no casts, urea, 1 per cent., and albumin positive. This man was operated and returned to his home without any evidence of uremia or other unfavorable symptoms having appeared.

Mrs. A.—Diagnosis: exophthalmic goiter. Systolic pressure, 170; diastolic, 134. Delay not taken. During the first hour 10 per cent. of the dye was excreted, and the second hour's urine contained 20 per cent. of the drug. Urinalysis showed only red blood-cells in profusion. A Stamm polar ligation of the right lobe of the thyroid was done. There were no renal complications during the uneventful convalescence.

The blood-pressure had not been indicative of the severe renal lesions which were present in these cases, with the exception of the goiter case, the highest pressure found being 140. This blood-pressure, systolic, occurred in the cases of renal sarcoma and cholelithiasis. Four cases having definite kidney disturbance had a systolic pressure of only 115 to 118.

CONCLUSIONS

1. Phenolsulphonephthalein appears in the urine of patients having apparently normal kidneys in from two and one-half to eleven minutes, when injected subcutaneously. In patients with renal lesions of varying severity, I found in two cases of marked kidney disturbance, the drug

having been given intravenously, that the dye promptly appeared in two and one-half minutes. Again, in other cases having approximately the same condition of affairs present, the drug, given subcutaneously, did not appear for from fifteen to twenty minutes. Therefore, I do not consider the time of appearance of the dye to be of much value. It simply tells when one should begin the collection of urine for percentage estimation.

2. The dye was excreted at a fairly constant rate in normal individuals, the first hour averaging 39 per cent., and the second 17 per cent. The average excretion of the drug for two hours was 56 per cent.

3. In cases having renal lesions, the output of the dye was considerably decreased except in one case, that of a renal sarcoma, where the remaining kidney was evidently doing the work of both kidneys. These abnormal cases averaged 24 per cent. for the first hour of the test, and 10 per cent. for the second, the total output being 34 per cent. Therefore, I believe that the phenolsulphonephthalein output is markedly decreased where there exist lesions of renal origin.

4. Since a large number of these cases presenting renal disturbance have been operated, following which marked improvement has taken place, I do not think that a low percentage of elimination of this dye should absolutely forbid operation, or be an absolute deciding point as to operation. I think that a good plan to follow is to order forced water and repeat the test within a week. If the percentage of elimination has remained about the same, the probability is that the kidney is working at its maximum and will, in all likelihood, withstand the anesthesia and operation satisfactorily.

5. It is unnecessary to have the patient drink a quantity of water before the test is made, because if reflex anuria occurs, the inhibition will be bilateral and water may be given at any time. This fact may even help to accentuate the findings from a diseased kidney.

6. When ureters are catheterized, it is essential to use the flute-end catheters or Garceau's one-catheter cystoscope, else there will occur leakage around the catheters and so produce errors in the percentage of dye eliminated.

7. It is preferable, with ureteral catheterization, to give the drug intravenously and to take the percentage of dye eliminated every fifteen minutes for forty-five minutes. It is obvious that in an intravenous injection part of the dye may either not be forced into the vein or may perhaps leak from it. This fact could cause an early appearance time but a delayed excretion.

8. This dye test seems to meet all of the conditions which Geraghty and Rowntree set up, although I do not believe that a test of this sort will inform a surgeon whether a patient can be operated safely. The fact that the test is absolutely non-toxic and does not seem to burden the kidneys and can be almost entirely recovered from the urine is decidedly in its favor. However, I believe that the phenolsulphonephthalein test is the most accurate one for the determination of renal function which we have. I think that a large series of cases will be necessary before the accurate behavior of this dye test in cases of chronic parenchymatous and interstitial nephritis is determined. However, making a phthalein test will be worth while in any case where all information possible to obtain relating to the kidney is desired.

I append my charts, showing the findings in the cases where the phthalein test was used.

331 North Delaware Street.

TREATMENT OF CHANCROIDS WITH COCAIN

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In treating chancroids in prostitutes, many of whom were addicted to the use of cocaine, I found that not a few were familiar with the property of the drug as a curative agent as well as that of relieving pain. They cleansed the parts with water and the crushed tablet was rubbed in.

I gave little thought to their statements until Dr. Lydston's article appeared in the *Jour. A. M. A.*, Vol. lviii, p. 551, in which he attached considerable importance to its use in small sluggish ulcers.

Since then I have used it with excellent results in both acute and chronic cases. It can be used advantageously in any ulcer, providing too great an area is not involved. The surface should first be cleansed with warm sterile water to which, if desired, a mild antiseptic may be added. The parts are then dried and a tablet or the crystals gently rubbed in with the gloved finger. A marked exudation of serum immediately takes place in which the drug is soon dissolved. In the female, where considerable surface of the vulva was involved, I have used as high as one and one-half grains, applied once daily, with no unfavorable effects from absorption.

THYROIDISM AND THE CLINICAL SIGNIFICANCE OF ITS PERVERSIONS

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INDIANAPOLIS

Of all ductless glands, the function of the thyroid is best understood, though still a problem not by any means solved. Many functional activities and intricate physiological interrelationships are still obscure. Many new hypotheses, some tending to doubt the accuracy of our established information of this important gland. Such theories should be laid aside for adequate proof of their soundness before acceptance, in view of our present information of the physiology, pathology and its clinical manifestations, which have been proven sufficiently definite to bring about most valuable results and benefit in their practical application for the relief of the morbid affections. Certain principles dealing with the generally accepted opinions of the physiological function of thyroidism and its disturbances, with their clinical manifestation concomitant with certain pathological changes in the gland, have been established both by laboratory experiment and by clinical observation. Certain therapeutic measures directed toward the thyroid lesions have given great practical benefit, irrespective of whether this gland lesion is or is not the primary causative factor in the production of the disease. This seems to be the great question in dispute among theorists. The chief function of the thyroid is its essential influence over proper metabolism of the whole body, aside from the bone and mental development in the child, and proper mental condition in the adult. Besides the commonly known conditions resulting from hypothyroidism, of which myxedema is a positive type, a most important recent advance in our knowledge of the thyroid shows that toxemia of pregnancy is due to such disturbance of its function.

Physiological hyperthyroidism is frequent, especially in the female sex, and a predisposing element, when oft repeated, to pathological change in secretion, leading to thyrotoxicosis. Early recognition of these symptoms is important, too often overlooked and ascribed to other causes, such as disturbances of the heart, neurasthenia, hysteria, intestinal derangements, etc. Mistakes like these are of grave consequence; the proper diagnosis, early, is not difficult; failure to recognize the manifestations is due to carelessness and not taking the time to make a careful clinical examination. Traumatism is often responsible, as an etiological factor in the causation

and aggravation of violent symptoms. There is a close relationship especially between the thyroid and the sex glands.

Besides trauma and surgical operations, severe emotion, such as fear, gestation and lactation, are strong etiological factors in the production and aggravation of violent manifestations.

The initial effect of the poison is exerted on the vagus and sympatheticus, stimulating and irritating nerve tissue generally, resulting in their degeneration and later in degenerative changes of the vital organs (heart, kidney, liver, etc.).

Blood examination is very important for differential diagnosis, also in prognosis.

Early surgical intervention offers the best results in treatment of Graves' disease, before the development of degeneration in other vital organs, and not after failure of prolonged internal treatment. Internal treatment has its place and certain limited indications. If in the early and incomplete forms of thyrotoxicosis there is no prompt subsidence, followed by constant retrogression of all symptoms, within a reasonable time (two, four or six weeks), prompt operative interference is indicated before the primary gland area affected involves still normal tissue, and especially before the inevitable degenerations of other organs in the course of the disease has had a chance to develop.

In my experience, the intra-capsular resection of the diseased gland has been the choice of operation, though no definite rules can be formulated for all cases. In cases of severe surgical risks simple polar ligation has a place as a surgical procedure, which method has served me well in a number of cases, in some of which the more radical resection was done at a later date, after subsidence of the severe, dangerous symptoms, and when the resection would have been an extra-hazardous undertaking.

ward and forward gradually and disappeared just beneath the adenoid tissue of Rosenmüller's fossa.

Further examination showed the vessel to be the internal carotid artery.

I had seen but one similar case and that in the old Beekman clinic in Berlin, years ago, and its impression had become dulled after doing many hundreds of adenoid operations, and while possibly I had not grown careless I had no doubt become less careful in making my examinations preliminary to tonsil and adenoid work. I am sure there are many operators who must confess the same fault.

I think the condition would have to be unusually grave to justify the preliminary ligation of the internal carotid below as recommended by Skillern.

In my case I advised against any operation, for although I believe it would be possible to operate without wounding the vessel, the condition is not serious enough to warrant the risk.

I wish also to report an unusual appendix case: The patient, a man of 49 years, had suffered a number of years from an unclassified "indigestion." In September he had a well-defined attack of appendicitis and was operated on this month. Little over an inch of the appendix came up into the wound with the cecum, and this was small, almost obliterated, but near the base of the appendix well within the bowel was a hard lump, the size of a marble and not separable from the bowel. The entire mass including the cecum well beyond it were removed and it was found that the lump was a fecolith in the appendix about one-fourth inch from its base. The lumen of the appendix had become sealed and the whole mass invaginated by the bowel, the three coverings being firmly sealed together with as much of the appendix entirely inside the bowel as out.

ANOMALOUS INTERNAL CAROTID ARTERY

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A few days ago a 4-year-old boy was brought to me for examination on account of mouth-breathing. He was unusually tractable for a child and a careful examination was easy. Over the tongue depressor just to the left of the midline and standing prominently revealed under the mucous membrane of the posterior pharyngeal wall was a large pulsating vessel, it curved out-

MEDICAL DEFENSE

"We would especially advise the doctor to be guarded in handling all cases as the tendency to sue is becoming more common especially in fractures. In fracture cases it is well to follow the example of a certain doctor. He always asks for a consultant. One patient said to him, 'Why is it, Doctor, that you always ask for another doctor in these cases?' The doctor's reply was, 'If things go wrong you would have a dozen lawyers.' On account of the frequency of suits for malpractice, our responsibility has increased and we should not hesitate to call a consultant or be watchful of all facts pertaining to treatment and management of these cases. Let me remind you that all cases are not surgical, the general practitioner is suffering most."—*Kentucky Med. Jour.*, Report of Medico-Legal Committee for 1912.

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EDITORIALS

THE DIVISION OF FEES

The March number of *THE JOURNAL* contained a letter from Dr. Miles F. Porter, suggesting that those who are for or against fee-dividing should be given an opportunity to make their positions known, and he invited a vote on the question. We have received a large number of letters concerning the subject, some of which will be published in the May number, and others in succeeding numbers of *THE JOURNAL*. We have opened the columns of *THE JOURNAL* for discussion of the subject and we shall give everyone of our readers an opportunity of aligning himself with or against the fee-dividers. The subject is one of great importance, and as it affects the professional, ethical and moral standing of our profession we believe that it is a proper subject for consideration.

Fee-dividing, in whatsoever guise it is practiced, is either wrong or right, and the question of upholding it should be settled one way or another. We owe it to the public and to the profession as a whole to place ourselves on record as individuals. We are aware of the fact that some of our readers have thought that the subject should be handled delicately, but no wrong ever existed which did not have its sponsors who use every endeavor to prevent the exposure of the wrong.

The editors of *THE JOURNAL*, in common with many other members of the medical profession, believe that fee-dividing is absolutely wrong in principle and practice, and has its foundation first, last and all the time, in a commercialism and desire for gain which have no place in the field of ethical practice. The very fact that the division of fees is not practiced openly, but in secret, is sufficient to condemn it as a species of graft and dishonesty which deserve exposure and adoption of means for correction of the evil. Tolerance of the practice of fee-dividing means disgrace and dishonor for the medical profession.

The medical man is deserving of and should receive just and adequate compensation for his

services, but he is not entitled to, nor should he be permitted to have, a fee that has been obtained by any species of graft, or by questionable practices of any description. The medical man may be excused for errors in judgment and lack of good taste in social or professional conduct, but he cannot nor should he be excused for practices which savor of the boodler and political ward healer.

The practice of medicine has been held to be a noble and honorable profession. It is a shame that it should be prostituted to the greed and selfishness of those who would profit by methods that have been condemned by all right-thinking people. In the interest of honesty and the professional honor we have so long been aiming to sustain, let us stamp out the iniquitous practice of fee-dividing, which is a curse on the profession and has already had its effect in lowering us in the eyes of the public. It is with a view of helping to purge our profession of a pernicious practice that is rapidly bringing distrust and dishonor on us that *THE JOURNAL* has offered its columns for the consideration of the subject. Do you or do you not approve of fee-dividing in any form? is a question that every man should be willing to answer. If he neglects or refuses to answer the question, he must in the natural order of events be open to the suspicion of being in sympathy with, if not actually a participant in, fee-dividing. If there are those who approve of fee-dividing, then let them stand up before the medical profession and the public and defend their position. If fee-dividing is honorable and justified by all the tenets of honesty and fair dealing, then let us have the facts so that we may see the error of our contention and proclaim to our readers that fee-division is eminently proper, and in the interest of all medical men should be practiced by one and all.

No amount of weak-kneed argument about paying for assistance, which must be admitted to be of an inferior and often dangerous sort, can cover up the primal principle in fee-splitting, viz., "to get the business." The logic of the individual who attempts to put the practice on a broad humanitarian basis of protection for his brother physicians, and in the same breath suggests that he should protect these men because it is they who bring him his bread and butter, is too rapid and empty to warrant discussion. And in the long run who is the one who is out for the dollar, the man who divides the fee in order to increase the volume of his business, or the man who trudges along doing the best work of which he is capable, content to let an honest-thinking

doctor make his own selection and asking only what his own services are justly worth?

Let us consider the matter for a moment from the standpoint of the general practitioner. He is to be helped by the surgeon to get what he considers to be just compensation for his services because he regards himself unable to collect such amount. All right, then, of course, he can only honestly render a bill to the patient for his total services less what he has received from the surgeon; otherwise he is charging twice for the same service and merits prosecution for obtaining money under false pretenses. If the patient is unacquainted with the transaction between surgeon and physician (which we believe to be the usual condition), has he not the right to place the same low estimate on the physician's services as would be represented by this net bill, and is not the physician making his compensation from the patient still more inadequate—in other words, is not he making it still harder for himself to collect proper fees for his services? And if the patient be acquainted with all the facts in the case, we are quite willing to believe that matters will adjust themselves and greatly to the detriment of the local physician in his individual community. Already the public is asking questions, and when the boodling physician is once found out and his stream ceases to flow, we doubt the continuation of the broad humanitarian wing of the fee-splitting surgeon that formerly wafted protection over him. Honest, sincere work brings its own compensation in the long run, and along with it a self-respect that needs not the aid of graft nor any other species of dishonesty.

So convinced are we that we stand in the right on this matter that we would be willing, nay even glad, to submit the whole proposition, without any reservation whatsoever, to any board of arbitration taken, say, from the state's or nation's best judiciary, and then abide by their decision without one word of dissent or complaint. Are the fee-splitters willing to do as much?

RESPONSIBILITY OF THE INDIANAPOLIS MEDICAL SOCIETY CONCERNING FEE-DIVIDING

It is hoped that the Indianapolis Medical Society will not unnecessarily delay putting itself on record as being opposed to fee-splitting in any form. It is certain that the medical profession is going to have to declare itself in no uncertain terms on this question. The mere fact that the public has not already demanded reform in this matter is a great compliment to the confidence

the people have in the high motives of the profession. Railroads, public utility corporations and various enterprises serving the public have been made the subjects of strict regulative legislation for evils no greater in spirit than fee-splitting. But the profession need not expect much longer immunity from public inspection, which means legislative control unless they show a determination to eliminate this evil. The responsibilities of the Indianapolis Medical Society are peculiarly large in this matter. In addition to a large body of general practitioners, it has a larger number of men doing special work than any society in the state. But of far more importance are the responsibilities entailed on the organized profession, consequent on the location in Indianapolis of the medical department of the Indiana University. A high morale, both ethical and scientific, must be maintained and cultivated by the profession in Indianapolis if the hopes of the state to build a medical department of merit are to be realized. Young men in more or less constant association with members of the local profession are profoundly influenced by that association, and no one can escape responsibility.

CONDITIONS OF MEMBERSHIP IN THE A. M. A. A CHANGE SUGGESTED

Dr. George H. Simmons, in *The Journal of the American Medical Association*, March 8, 1913, discusses the conditions of membership in the American Medical Association, and proposes a change of name as applied to the membership of the Association. It is not his idea that the conditions should be changed, but that all members of county and state medical societies shall be known as "fellows." The proposed change does not alter the existing conditions, but it is thought that the change of name will have the tendency to give a larger number of physicians a more personal interest in the Association.

We have been asked to comment on the proposed change and we therefore have no hesitancy in saying that we heartily approve the plan proposed, though we believe that other changes should be adopted. For instance, we have never believed that it was either just or advisable to permit a large number of men who do not contribute in any way to the support of the American Medical Association, and who in many instances are not even in sympathy with its aims and objects, to have a voice in its management. We are strongly of the opinion that the selection of delegates should be made by those who are

sufficiently interested in the Association to pay something toward its support.

According to Dr. Simmons' statement, there are approximately 70,000 members of county and state medical societies, of which but 36,000 (approximately) are contributing members to the American Medical Association. There is not a particle of sense or justice in permitting nearly 35,000 physicians to have a voice in the management and control of the Association, to the support of which they contribute nothing.

To our notion, there is just one solution of the question, and that is to make every member of a county medical society a contributing member of the American Medical Association, just as we now make him a contributing member of the state association. In other words, the fixed dues of the American Medical Association and the state association should be made a part of the county society dues, and failure to pay such dues should wipe out membership in all of the medical bodies so associated.

With a greatly increased number of contributing members it would be possible to reduce the American Medical Association dues without cutting out any of the benefits which are now afforded members. If some such plan as this is not adopted then the next best plan, and the only one which we believe to be just, is to place the control of the American Medical Association entirely in the hands of the contributing members. This means that no one who does not pay dues to the American Medical Association should be permitted to cast a ballot for the election of any officers of the American Medical Association.

The plan proposed by Dr. Simmons, perhaps, will improve conditions if we are to continue on the present basis of unfair representation. Our forefathers complained about "taxation without representation." In the case of the American Medical Association there is representation for approximately 35,000 members without taxation. It is time that the inequality is corrected.

MEANS FOR REDUCING THE MORTALITY FROM CANCER OF THE UTERUS

The contrast between the success attendant on the treatment of tuberculosis and that of cancer grows more striking every year. In fact, with the well-recognized increase of cancer incidence, our records of cure become appalling, and this despite the enormous amount of research that has been, in the past, and is at present being directed along this line. Werner, for instance, examining

the vital statistics of Baden for the past twenty-five years, reports¹ during this time an increase of about one-third in the yearly number of cancer deaths. The increase reaches to as high as 50 to 60 per cent. in persons over sixty years of age, is very slight in those from forty to sixty, with no increase whatever in those under forty. Werner, therefore, believes that the apparent increase represents the true state of affairs, and is not due to better diagnosis, because, in the latter event the increase should affect all ages differently. Fortunately for the purposes of this discussion, Werner's studies developed the fact that more than 50 per cent. of the cancer deaths were due to an involvement of the gastro-intestinal tract, no other organ showing anything like the same preponderance. Bertillon,² basing his results on a similar statistical study concerning the occurrence of cancer in France, has arrived at practically the same conclusions, viz., that carcinoma is on the steady increase, most countries with reliable statistics showing the frequency to have doubled in the past thirty years; that the increase is limited to persons over 55 years of age, and in locality to the stomach and rectum, cancer of the mouth and breast showing no increase and cancerous affections of the female genital organs even diminishing in frequency. Van Konijnenburg reports similar findings in Amsterdam where carcinoma of the digestive system has doubled in frequency, while in the breast and female genital system, it has remained almost stationary.

One can readily understand why statistics concerning breast carcinoma might show a decrease in frequency, in that through the medical profession the word has gone forth pretty generally to every woman that any lump in her breast warranted an examination at the hands of a qualified physician. As a result doubtless many potentially malignant areas have been subjected to timely removal, with a consequent reduction in the cancer incidence in that anatomic locality. A plea for the same prophylactic precaution is well presented by Boldt in a recent number³ of *The Journal of the American Medical Association*. He prefaces his article by calling attention to our ignorance regarding the cause of the disease, and, in fact, much of anything else concerning it save the fact that in the early diagnosticated cases surgery does offer some hope of permanent cure. Granted then that in such stage uterine carcinoma is a curable affection in many cases, the responsibility rests on us to make the diagnosis

1. München. med. Wchnschr., 1911, lviii, 2325.

2. Presse Med., 1911, No. 38, p. 385.

3. March 29, 1913.

sufficiently early, if the patients present themselves to us for examination.

The crux of the whole situation then is how best to get the early case to the gynecologist. Boldt is decidedly pessimistic concerning the outcome of newspaper and magazine publicity, and particularly so after having conversed with a number of German gynecologists who were connected with university hospitals and had carefully studied the question of publicity. The campaign of publicity so extensively launched by Winter several years ago had, in the eyes of the observers, borne little fruit in the way of bringing cases of cancer of the uterus to the gynecologist any earlier in their course. The only effect they had seen was that "a goodly number of neurasthenic women were made more nervous and consulted physicians in fear of cancer." Boldt is convinced that this is about the only effect of giving the cancer symptoms to the public through the lay press. He feels that the better way—the only rational way, indeed—is to impress on the profession the grave importance of being conscientious in the matter of examination, and never superficial. He deplores the fact that many women with atypical bleeding are told without examination that they are merely suffering from the symptoms of the menopause, given internal remedies and told to take the medicine until they were better. Or so-called "ulcerations" of the cervix are treated with local applications until too late for a radical operation, without a hint from the physician that it might be a serious condition. Since malignant degeneration not infrequently develops on the surface of an erosion, it behooves us all to avail ourselves early of the services of an expert pathologist for the microscopic examination of a section taken from every suspicious-looking cervix. Likewise since leukorrhea is an even earlier symptom of uterine cancer than atypical bleeding, we should see to it that of every curettage the scrapings should be subjected to a thorough microscopic examination.

The diagnosis of uterine cancer having been made, Boldt does not hesitate to recommend the extended abdominal operation for the greater number of patients. The exceptions he makes to this rule are the very obese patients, cancer of the body of the uterus, when the uterus is freely movable, and cases of incipient epithelioma of the vaginal portion of the cervix. Under border-line cases he classes those in which the disease is so far advanced that while it may be possible to extirpate the cancerous uterus, it is very doubtful—indeed, improbable—that all

malignant structures can be removed. On such cases he would perform a palliative operation with the cautery, just as in instances at once diagnosed as inoperable by radical means. It is here noteworthy that Boldt does not relate the rather remarkable results obtained by the cautery method in the hands of Byrne, Werder and others,⁴ but especially the first named.

Although he has never seen an instance of marked benefit from the x-ray treatment of uterine cancer, yet Boldt believes that such therapy is clearly entitled to a place, since other observers have occasionally seen benefit result from its use in seemingly inoperable cases.

In conclusion, the author summarizes as follows:

"We know nothing as to the cause of cancer.

"There are no symptoms which, alone, are characteristic of cancer of the uterus.

"The onset of the disease is so insidious that sometimes the neoplasm has progressed to a stage beyond the hope of cure by any kind of operation, before the appearance of a symptom sufficiently marked to cause the patient to seek advice.

"The promulgation of knowledge regarding cancer of the uterus through the lay press, as advised at the last meeting of a large national gathering, cannot bring about a lowering of mortality from uterine cancer to such extent as would be the case if the medical profession—the family physician—did the teaching directly.

"Information regarding cancer of the uterus in its early stages, through the lay press, is likely to do more harm than good, because there are no characteristic symptoms that apply to that disease alone, and because the principal early symptom, leukorrhea, is one that is present so often in women in whom there is not the slightest suspicion of uterine cancer that such lay articles are likely to aggravate the nervous symptoms already existing in many, and make neurasthenics of some who are not ill.

"The family physician must be urged to realize that, in all instances in which there is the slightest suspicion of cancer, his obligation to his patient is to ascertain, by all diagnostic means at his command, that cancer is not present, rather than to affirm a cancer diagnosis.

"When the diagnosis of cancer has been made, an operation for the relief, or the cure—as the case may be—should be undertaken as soon as possible, since, with our present knowledge, surgery offers the best prospect for the patient."

4. *Surg., Gynec. and Obstet.*, March, 1913.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

The Journal A. M. A., in a recent issue, has some unkind things to say about Pluto Water. Can it be possible that our genial Tom Taggart has neglected to have all of the editorial force of our leading national medical periodical as his guests at French Lick? It is sufficient to say that Taggart's well-known reputation as a royal host goes a long way toward side-tracking unfavorable comment concerning French Lick, with its Monte Carlo tendencies, and Pluto Water, the virtues of which have always been greatly exaggerated.

As one of the members of a leading surgical association said in supporting a resolution condemning fee-dividing, "We shall not ask whether a man has ever practiced fee-dividing or not, but we do ask him to make a vow that he will not practice it in the future, or sanction it in others, under the penalty of suspension from the society." This is the proper attitude to assume, and we hope that every medical society will awaken to the necessity of taking some action whereby its members will be placed on record as anti-fee-dividers.

THE flood situation in Ohio and Indiana has called forth the best efforts of the medical profession in relieving the sufferers who have required skilled medical attention, and in offering suggestions and advice concerning the best manner of handling the public health situation. As *The Journal A. M. A.* well says, it is in times of disaster and peril that the public looks to the regular medical profession for help. At such times you never hear a word about the osteopaths, chiropractics, Christian scientists, and other medical pretenders. What the public wants and what the public demands in emergency is the well educated and thoroughly trained physician.

Surgery, Gynecology and Obstetrics, with Franklin H. Martin, M.D. of Chicago, as managing editor, is publishing a supplement devoted to abstracts of current surgical literature with the purpose of furnishing in English a complete bibliography of the surgery of the world. In adding this new department the editors are to be

commended for their enterprise in furnishing at one price one comprehensive and very high class surgical journal that meets all the requirements of any surgeon. The editorial staff contains the names of some of the most noted American and English surgeons, and we note with satisfaction that the managing editor has adopted the policy of having clean advertising pages by refusing any and all advertising that would not be approved by the Council on Pharmacy and Chemistry of the American Medical Association. The enterprise deserves and should have the support of all progressive surgeons and gynecologists.

GOVERNOR MARSHALL appointed Dr. S. G. Smelser a member of the Board of Medical Registration and Examination to pay a political debt. We can understand how this could happen, but we fail to understand why Governor Marshall did not unceremoniously kick Dr. Smelser out of office when that gentleman failed to tender his resignation to the Governor as requested, and had proven himself incompetent as well as undesirable as an appointee. There are times when a man should have the courage of his convictions, and we believe that Governor Marshall displayed a little weakness when, after knowing the standing of Smelser, he appointed him to a position of trust and honor, and the Governor displayed still further weakness when, after discovering that Smelser was unfitted in every particular for the position to which he was appointed, he did not unceremoniously "fire" Smelser from the Board.

In the proceedings of the Delaware County Medical Society, published in this number of *THE JOURNAL*, will be found an intimated criticism of the management of a case of tuberculosis at the Rockville Sanitarium. It seems a little far-fetched to say that a case of tuberculosis has been cured after five doses of tuberculin and sent home after only seven weeks of sanitarium care, and if it is true that the patient was given a bottle of tuberculin for self-medication the responsible physician is deserving of the criticism that has been offered.

As a matter of fact, there are always two sides to every story, and we are fully aware of the natural tendency of patients to distort statements that have been made by attending physicians. We are all liable to make mistakes occasionally, but as physicians we are not justified in being hasty in passing judgment on apparent mistakes that have been magnified and distorted by the laity.

FRIEDMANN and his consumption cure have been "lost in the shuffle," since the floods have taken the attention of the public press. We fancy that Dr. Friedmann does not relish the fact that he is out of the lime-light for the first time since setting foot on American shores. We are waiting patiently for the report of the medical department of the United States Army and Navy, as to the value of the Friedmann remedy. Meanwhile we are inclined to the view expressed by the *Lancet-Clinic*, which says: "While we recognize the truth of the old adage, 'That a prophet is not without honor save in his own country,' it seems strange that this new discovery is given such slight record in his own city, for in no other place on the globe are there more competent physicians or better facilities to test the procedure of Dr. Friedmann than in Berlin."

ON account of the conditions following the flood it is expected that there will be an increase in the morbidity and mortality rate, notwithstanding all of the precautions that have been urged by health boards and quite generally adopted by the public.

The contamination of water supplies will undoubtedly bring about an increase in the number of cases of typhoid. In this connection it would be well for members of the medical profession to remember that the bacteriological laboratory of the State Board of Health will furnish gratuitously all of the typhoid vaccine that is necessary for the vaccination of families where there are one or more cases of typhoid, and also to hospitals and training schools for nurses.

In order to get the vaccine all that is necessary is to write to the laboratory stating the number of first doses desired. These will be sent immediately by parcel post. Clinical sheets will accompany the vaccine and when these clinical sheets are filled out and returned, without further request the second doses will be sent, as will also the third doses when the second clinical sheets are returned.

THE most striking thing about the work of the bacteriological department of the Indiana State Board of Health for the month of February is the fact that twenty-seven brains from dogs were found to contain negri bodies. During the same period sixteen persons finished the antirabic treatment. In spite of the stringent county quarantine law passed by the legislature two years ago, the rabies situation continues to become more and more serious, and every year shows a considerable increase in the number of dogs developing the

disease, the number of persons bitten, and an increase in the loss of farm stock from rabies. Since June 12, 1911, the Indiana State Board of Health has administered the "Pasteur Treatment" to 131 persons. Two of these persons have died, the first, a woman 52 years of age, died fifteen days after she had finished the treatment. The second, a boy 4 years old, died ten days after he had begun the treatment, and twenty days after he had been bitten.

According to the statistics of the various Pasteur laboratories of the world, covering several thousands of persons treated, about one-half of one per cent. of the cases die in more than thirty-six days after they have been bitten. This number they attribute to the failure of the treatment to protect against the development of the disease. Another one-half of one per cent. died in thirty-six days or less following the bite. These they attribute to the insufficient period allowed for the antirabic treatment to develop immunity. According to the very best statistics, neither of these two deaths in Indiana could be attributed to the failure of the treatment to protect.

IN the published transactions of the Indianapolis Medical Society, in this number of THE JOURNAL, will be found a record of the Society's action on the fee-division proposition. From two or three sources we learn that an attempt was made to avoid discussion of the subject and it was thought that the best way to bury it would be to refer it to the judicial council of the Society. We fail to understand why the men who are connected with the Indiana University School of Medicine should not come out boldly in support of any movement which has as its object the stamping out of a practice that is so tinctured with commercialism and dishonesty as to make it a thorn in the flesh of the medical profession which is bound to end in disaster. If fee-dividing is right then let us come out openly and defend it instead of trying to keep it in the dark. If it is wrong then let every right-thinking physician bend his energies to stamping it out. There is no middle ground, and we believe that whenever you find a physician who desires to avoid placing himself on record as either favoring or opposed to fee-dividing it is reasonably safe to count on finding a man that is a fee-divider in some form or other. As a matter of fact, the subject is not going to be dropped, even though the medical profession closes up like a clam, for the public is going to investigate the matter, and, if we mistake not, the medical profession will suffer more toll than would be ex-

acted if we settle this proposition among ourselves. We really ought to be ashamed of ourselves to have permitted this canker to have taken root and thrived in such a vigorous manner. It does not speak well for our much boasted sense of professional honor to say nothing of our morals, to permit fee-dividing, in any guise it is practiced, to continue as a disgrace to the profession.

PERHAPS the greatest task in connection with the Indiana-Ohio flood is now being experienced, viz., the effort to combat the disease that is almost sure to follow in the wake of such catastrophies. The economic cost to the state through the immediate effect of the flood might well be meager, indeed, as compared to the possible morbidity and mortality following.

The Journal of the American Medical Association has sounded a timely warning in a recent editorial,¹ italicizing the slogan "to boil the water and pasteurize the milk" for a number of weeks and possibly months, wherever sewerage and water systems have been affected. And this of course applies to a very large proportion of the inundated areas.

Not only does there rest on the whole medical profession a particular obligation at this time to safe-guard the people to the greatest extent, but the emergency demands the exercise of the most exhaustive efforts of our state and municipal boards of health. Indeed, it is a time when the sanitary department of a city should have almost oligarchial powers and should insist on the proper observance thereof. Fortunately most of the thinking public is perfectly willing and anxious to follow instructions from such sources, and those who are not should be promptly and rigorously punished.

This only calls to mind what we have on several previous occasions maintained, viz., that the crying need for every municipality in this great body of civilization is for sanitarians and health officers of the highest type of efficiency. They should be men who are particularly qualified for this kind of work and should possess such training as is now to be had in some of our better medical schools whose curricula provide for this particular line of work. Furthermore, the work is big enough, if properly conducted, in our large cities especially, to require the undivided time of such a man and he should be employed with the distinct understanding that he is to devote his entire time to this work alone. Naturally, the meager salary allowed our health officers

under the present laws, will not entice any man who expects to make this his life work. We are at a distinct loss to understand the short-sighted policy of a legislature that cares so little for the state's assets in human life and health and so much for that of its hogs and chickens.

Then too, with such trained sanitarians as we would have in office, there should be no other limit to their terms of service than that of efficiency. The policy of changing the personnel of city boards of health with every municipal election is about on a par in extravagance with changing automobiles every time a tire is punctured. The office should have even less dependence on politics than school officers—in fact, politics has no place whatever in the safe-guarding of our health and lives.

DEATHS

JACOB N. RANNELLS, M.D., age 52, a physician of Rochester, died at his home in that city on March 14, of cancer of the liver.

STONEWALL J. ALSMAN, M.D., Barnes Medical College, St. Louis, 1904; died at his home in Pleasantville, Dec. 12, 1912, from tuberculosis.

SAMUEL J. POWERS, M.D., age 52, who was for a number of years small-pox physician for the city of Evansville, is dead. Dr. Powers was a native of Louisville, Ky.

HOWARD G. OSGOOD, M.D., age 79, died of heart failure March 10, at his home in Gosport, where he had been engaged in the practice of medicine for about fifty years.

JOHN MILTON HARRAH, M.D., age 77, died of pneumonia at his home near Bloomfield. April 12. He retired from practice to live on his large farm a short distance west of Bloomfield.

THOMAS M. BARKLEY, M.D., for nearly half a century a practitioner of Gibson County, Ind., died at his home in Owensburg, February 21, aged 73. He was a graduate of the Rush Medical College, 1863.

WARREN R. KING, M.D., died at his home in Greenfield about April 1. He has been for years prominently identified with the state and national grand army, and for four years was chief surgeon of the Indiana State Soldiers' Home at Lafayette.

¹ March 29, 1913.

L. M. DAVIS, M.D., Indiana Physiomedical College, 1900, died at his home in Hayden, March 20, from an overdose of morphin; aged 38. Dr. Davis was elected Trustee of Spencer Township in 1908, and held the office at the time of his death.

EDWARD F. WAGNER, M.D., a graduate of Jefferson Medical College, 1884; medical inspector for the Pennsylvania System Relief Union, who was on duty during the Johnstown flood of 1889, died at his home in Fort Wayne, February 23, aged 52.

JAMES L. HENDRICKS, M.D., fell unconscious on the street as the result of a stroke of apoplexy and died at his home in Lebanon two hours later. He was 67 years old, and lived in Lebanon since 1886, previous to which he had practiced medicine in Blountsville, Ind.

JAMES S. BLAIR, M.D., age 62 years, died at his home in Lynn, April 1, after a brief illness, of Bright's disease. He had practiced medicine in Randolph County for the past thirty-eight years and was one of the most prominent physicians in the county. He was highly identified in lodge and political circles.

S. S. DUPEE, M.D., colored, died March 30, 1913, from embolism of the inferior mesenteric artery complicated with appendicitis. He was born in Shelbyville, Ky., March 28, 1872. He graduated at Howard University, Washington, D. C., in 1898, and came to Evansville immediately, where he was a very successful practitioner with his own people.

ERNEST L. MOORE, M.D., of Indianapolis was killed March 23, by a cyclone while in his office sleeping. Through falling timbers and in a shower of plaster the wind carried the physician to the sidewalk and deposited him, with the mattress on which he had been sleeping, to the edge of the gutter, which was full of rushing water. He was rescued and taken to a nearby house where he soon died.

NEWS NOTES AND PERSONALS

INDIANAPOLIS

THE mayor has very wisely issued a dog-muzzling order as a result of a number of cases of rabies in the city. If this order is strictly enforced it will stamp out the disease.

DR. D. W. LAYMAN has been on a short trip to New York visiting some of the clinics while there.

DR. ROBERT LONG has recently made an additional gift of \$25,000 to the Robert W. Long Hospital.

DR. H. S. THURSTON is a victim of the usual automobile back fire accident, and has a sprain-fracture of the right wrist as a result.

THE Younger Physicians Club recently gave a dinner at the German House with Drs. W. N. Wishard, Brayton, Woollen, Pantzer as guests of honor; Dr. A. C. Kimberlin acting as toastmaster.

DR. R. C. BEELER has returned to Indianapolis from New York City, where he has been doing post-graduate work in x-ray lines. He has become associated with Dr. Albert M. Cole in the Indiana X-Ray Laboratory.

THE Review Club was entertained at the home of Dr. M. N. Hadley, 3132 N. New Jersey, on the evening of March 17. Some edibles and other things were served to promote relaxation from a too strenuous scientific diet.

DR. ROBERT W. LONG has surprised the Indiana University Board by an additional gift of \$25,000 to be added to the hospital fund. It is expected that the memorial institution erected with the money given by Dr. Long will be ready to receive patients in September.

ACTING under a recent act of the legislature, which provides for the establishment of tuberculosis hospitals by counties, the City Board of Health proposes to take up the matter of erecting such a hospital, and the Board of County Commissioners will be asked to give their approval and assistance. There is great need of such a hospital in Marion County, which would relieve the city of the care of tuberculous patients.

DR. WILL SHIMER, superintendent of the pathological laboratories of the State Board of Health, says that everywhere in the state the percentage of rabies is increasing, and he believes that only a state-wide dog-muzzling law will stop the increase of the disease. According to his figures, thirty-eight dogs which have died in Marion County during the last month were found to be afflicted with rabies. The number of

patients coming to the state laboratories for treatment to prevent rabies is rapidly increasing. Thirty-three patients from Marion County alone have received treatment to prevent rabies at the state laboratories during the last eighteen months.

THE medical profession of this city was quick to respond to the call for help that arose on the occasion of the recent flood. Many physicians volunteered their services in caring for the refugees that were temporarily quartered in many of the public buildings of the city. In the flooded districts physicians opened their homes and carried hither their patients. The Board of Health acted energetically and wisely in insisting on the dangers of allowing the refugees to return to their homes while the homes were in most unsanitary conditions. The Board of Health boldly stepped to the front and placed the entire flooded district under quarantine, and called on the city police force for the enforcement of strict quarantine regulations. It called attention to the fact that allowing the people to go back to their homes while in such a condition invited a catastrophe more serious than the flood itself. This situation is justification for the large powers the people have placed in the hands of local boards of health. It places a heavy responsibility on these boards, and it behooves the medical profession to see that representative men of the profession occupy these places. The Indianapolis board has done much to establish itself in the confidence of the public in this crisis.

GENERAL

DR. ROBERT HARRIS, South Bend, celebrated his ninetieth birthday anniversary, March 14.

SINCE the establishment of the Pasteur Laboratory, June 12, 1911, the Indiana State Board of Health has treated 131 persons to prevent rabies. Only two of the number died.

ARNO KLEIN, M.D., Mount Vernon, Ind., was married to Miss Emily Virginia Brower of Williamsport, Pa., February 26.

DR. J. N. HURTY, state health board secretary, has been appointed a member of the National Commission on Milk Standards, and has also been asked to draft a model health bill for the state of Iowa.

THE Indiana legislature has made an appropriation of \$65,000 for the medical school and hospital of the Indiana University School of Medicine for the first year, and an annual appropriation of \$75,000 thereafter.

DR. HERBERT W. POWERS, formerly with the Kenilworth Sanitarium, has taken the position of senior assistant physician at the Milwaukee Sanitarium for Nervous and Mental Diseases, at Wauwatosa, Wis. Dr. Powers will be associated with Dr. Richard Dewey.

DR. JAMES A. MILLIGAN, deputy warden of the state prison, Michigan City, has been appointed physician to the Indiana Hospital for Insane Criminals in connection with the prison. Dr. Paul Bowers continues in his present capacity as prison physician.

DR. CHARLES A. DAUGHERTY, South Bend, who has been suffering for a considerable time from what was supposed to be inflammation of the gall-bladder, was operated on at Augustana Hospital, Chicago, February 25, but on opening the abdomen, conditions were found which rendered further procedure inadvisable.

THE Annual Meeting of the Ninth Councilor District Medical Association will be held at Lafayette, Thursday, May 15, at 1:30 p. m., followed by a banquet at 6:30. The guest of the meeting will be Dr. A. C. Croftan of Chicago, who will present a paper on "Some Newer Points in the Diagnosis and Treatment of the Anemias."

ARRANGEMENTS for the opening of the Twin Hills Tuberculosis Camp are well under way. It is expected that the camp will be opened the first of this month. Drs. F. W. Shaley, Loueks and John H. Hewitt, Terre Haute, have been appointed a committee to confer with the commissioners of Vigo County in regard to an appropriation for the maintenance of the camp.

DR. BURTON D. MYERS of Bloomington, Secretary of the Indiana University School of Medicine, has prepared a review of the Kallikak family, recently mentioned editorially in the *Journal A. M. A.*, and has prepared lantern slides of all the illustrations in the book for illustrating his lecture. The important findings in this re-

markable piece of research work should be widely known throughout the state, and as it works up very well as a lecture, there ought to be a demand on Dr. Myers for the presentation of the subject at various district or county meetings. The lecture is of such character that the public could be invited.

DR. GEO. D. KAHLO, ex-president of the Indiana State Medical Association, and formerly physician-in-charge at French Lick, is now medical director of the White Sulphur Springs in West Virginia.

Dr. Kahlo has just returned from Europe, where, with his family, he spent three months in Munich, Berlin, Vienna and London, besides visiting a number of health resorts. He reports that the C. & O. Railway is spending \$2,500,000 in improvements at White Sulphur Springs, and that included in the improvements will be a magnificent fire-proof hotel and the finest baths in America.

SINCE March 1, the following articles have been accepted for inclusion with New and Non-official Remedies:

Acne Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Anti-Meningitis Serum, Sophian-Hall-Alexander Biologic Laboratories.

B. Coli-Communis Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Diphtheria Antitoxin, Sophian-Hall-Alexander Biologic Laboratories.

Gonococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Meningococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Pneumococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Pyocyaneus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Staphylo-Acne Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Streptococcus Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Typhoid Vaccin, Polyvalent, Sophian-Hall-Alexander Biologic Laboratories.

Anti-Gonococcic Serum, Sophian-Hall-Alexander Biologic Laboratories.

Anti-Streptococcic Serum, Sophian-Hall-Alexander Biologic Laboratories.

Normal Horse Serum, Sophian-Hall-Alexander Biologic Laboratories.

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

The following is a list of those who have paid Association dues between January 1 and April 1, 1913. Errors in name or address should be reported to Secretary Combs, giving number of the membership card in order to facilitate prompt detection of the error on the membership records. This list as published is included on the mailing list of THE JOURNAL, and any member whose name appears on this list and who does not receive his Journal is requested to write for a duplicate copy:

| NAME AND ADDRESS | COUNTY | SOCIETY |
|------------------------------------|------------|------------|
| John R. Ranes, Mt. Vernon..... | Posey | Posey |
| D. C. Ramsey, Mt. Vernon..... | Posey | Posey |
| U. G. Whiting, Mt. Vernon..... | Posey | Posey |
| C. P. Barrett, Oliver..... | Posey | Posey |
| D. W. Welch, Mt. Vernon..... | Posey | Posey |
| C. H. Fullinwider, Mt. Vernon..... | Posey | Posey |
| Edwin Rinear, Mt. Vernon..... | Posey | Posey |
| H. H. Sugg, Mt. Vernon..... | Posey | Posey |
| T. J. Hall, Cabrons..... | Posey | Posey |
| J. Bolin, Winamac..... | Pulaski | Pulaski |
| G. W. Thompson, Winamac..... | Pulaski | Pulaski |
| W. H. Thompson, Winamac..... | Pulaski | Pulaski |
| W. C. Moss, Winamac..... | Pulaski | Pulaski |
| E. C. Lidikay, Ladoga..... | Montgomery | Montgomery |
| J. L. Beatty, Crawfordsville..... | Montgomery | Montgomery |
| E. C. Cook, Madison..... | Jefferson | Jefferson |
| G. E. Denny, Madison..... | Jefferson | Jefferson |
| Carl Henning, Hanover..... | Jefferson | Jefferson |
| S. A. Whitsitt, Kent..... | Jefferson | Jefferson |
| Vincent Shepherd, Dupont..... | Jefferson | Jefferson |
| J. K. Pollock, Madison..... | Jefferson | Jefferson |
| C. C. Bitler, Madison..... | Jefferson | Jefferson |
| C. W. Denny, Madison..... | Jefferson | Jefferson |
| F. C. Denny, Madison..... | Jefferson | Jefferson |
| H. M. Winans, Muncie..... | Delaware | Delaware |
| U. G. Poland, Muncie..... | Delaware | Delaware |
| I. N. Trent, Muncie..... | Delaware | Delaware |
| E. S. Green, Muncie..... | Delaware | Delaware |
| Geo. R. Green, Muncie..... | Delaware | Delaware |
| D. M. Green, Muncie..... | Delaware | Delaware |
| G. W. H. Kemper, Muncie..... | Delaware | Delaware |
| W. J. Molloy, Muncie..... | Delaware | Delaware |
| H. A. Cowing, Muncie..... | Delaware | Delaware |
| G. W. Bucklin, Muncie..... | Delaware | Delaware |
| E. S. Fisher, Muncie..... | Delaware | Delaware |
| W. W. Wadsworth, Muncie..... | Delaware | Delaware |
| Chas. Frazier, Muncie..... | Delaware | Delaware |
| H. P. Franks, Muncie..... | Delaware | Delaware |
| H. D. Fair, Muncie..... | Delaware | Delaware |
| W. P. Mitchell, Gaston..... | Delaware | Delaware |
| C. A. Martin, Muncie..... | Delaware | Delaware |
| A. T. Kemper, Muncie..... | Delaware | Delaware |
| J. M. Quick, Muncie..... | Delaware | Delaware |
| A. E. Vinton, Muncie..... | Delaware | Delaware |
| W. N. Thompson, Sullivan..... | Sullivan | Sullivan |
| R. B. Douglas, Shelburn..... | Sullivan | Sullivan |
| J. H. Neff, Sullivan..... | Sullivan | Sullivan |
| G. D. Scott, Sullivan..... | Sullivan | Sullivan |
| J. R. Crowder, Sullivan..... | Sullivan | Sullivan |
| R. H. Van Cleave, Farmersburg..... | Sullivan | Sullivan |
| J. M. Billman, Sullivan..... | Sullivan | Sullivan |
| T. W. Kennedy, Sullivan..... | Sullivan | Sullivan |
| E. E. Robards, Shelburn..... | Sullivan | Sullivan |
| J. T. Oliphant, Farmersburg..... | Sullivan | Sullivan |
| J. H. Wrook, Shelburn..... | Sullivan | Sullivan |
| C. R. Walters, Paxton..... | Sullivan | Sullivan |
| C. U. Thralls, Hymera..... | Sullivan | Sullivan |
| W. A. Lisman, Carlisle..... | Sullivan | Sullivan |
| H. E. Bland, Fairbanks..... | Sullivan | Sullivan |
| Paul Higbee, Sullivan..... | Sullivan | Sullivan |

| NAME AND ADDRESS | COUNTY SOCIETY |
|-------------------------------------|----------------|
| Dalton Wilson, Boonville..... | Warriick |
| W. A. Hewins, Chandler..... | Warriick |
| W. W. Hewins, Chandler..... | Warriick |
| E. L. Youngblood, Boonville..... | Warriick |
| D. A. De Forest, Boonville..... | Warriick |
| W. P. Ford, Boonville..... | Warriick |
| C. F. Martin, Boonville..... | Warriick |
| P. N. Hoover, Boonville..... | Warriick |
| J. G. Hoover, Boonville..... | Warriick |
| F. W. Krueger, Richmond..... | Wayne |
| J. M. Thurston, Richmond..... | Wayne |
| Louis Francisco Ross, Richmond..... | Wayne |
| H. B. Boyd, Cambridge City..... | Wayne |
| Richard Schillinger, Richmond..... | Wayne |
| J. C. Blossom, Richmond..... | Wayne |
| E. R. Churchell, Richmond..... | Wayne |
| Chas. Bond, Richmond..... | Wayne |
| J. M. Wampler, Richmond..... | Wayne |
| S. C. Markley, Richmond..... | Wayne |
| J. E. Weller, Richmond..... | Wayne |
| A. L. Bramkamp, Richmond..... | Wayne |
| C. P. Colburn, Richmond..... | Wayne |
| L. M. Gentle, Richmond..... | Wayne |
| Geo. B. Hunt, Richmond..... | Wayne |
| H. C. Burcham, Richmond..... | Wayne |
| R. R. Hopkins, Richmond..... | Wayne |
| W. L. Miller, Wadesville..... | Posey |
| E. K. Westhaver, Newcastle..... | Henry |
| H. W. MacDonald, Newcastle..... | Henry |
| C. E. Van Matre, Newcastle..... | Henry |
| E. B. Call, Knightstown..... | Henry |
| S. C. Waters, Middletown..... | Henry |
| E. S. Ferris, Newcastle..... | Henry |
| W. C. Van Nuys, Newcastle..... | Henry |
| D. S. Wiggins, Newcastle..... | Henry |
| R. L. Lee, Newcastle..... | Henry |
| J. E. Hiatt, Newcastle..... | Henry |
| L. A. Hyde, Linton..... | Greene |
| A. A. Thomas, Linton..... | Greene |
| P. C. Berns, Linton..... | Greene |
| August F. Knoefel, Linton..... | Greene |
| E. R. Mason, Bloomfield..... | Greene |
| E. T. Sherwood, Linton..... | Greene |
| B. A. Rose, Linton..... | Greene |
| Jehn Talbott, Linton..... | Greene |
| J. W. Gray, Bloomfield..... | Greene |
| J. E. Talbott, Linton..... | Greene |
| Bruce Fleetwood, Linton..... | Greene |
| M. N. Thayer, Linton..... | Greene |
| F. A. Van Sandt, Bloomfield..... | Greene |
| C. D. Mallett, Switz City..... | Greene |
| W. R. Cravens, Bloomfield..... | Greene |
| Wm. S. Ehrich, Evansville..... | Vanderburg |
| J. C. McClurkin, Evansville..... | Vanderburg |
| B. S. Rose, Evansville..... | Vanderburg |
| Thos. Macer, Evansville..... | Vanderburg |
| J. H. Willis, Evansville..... | Vanderburg |
| W. E. McCool, Evansville..... | Vanderburg |
| G. C. Johnson, Evansville..... | Vanderburg |
| W. H. Coleman, Evansville..... | Vanderburg |
| P. C. Reitz, Evansville..... | Vanderburg |
| D. G. Tweedall, Evansville..... | Vanderburg |
| C. F. Cluthe, Evansville..... | Vanderburg |
| C. E. Laughlin, Evansville..... | Vanderburg |
| W. R. Davidson, Evansville..... | Vanderburg |
| W. H. Gilbert, Evansville..... | Vanderburg |
| W. P. Woods, Evansville..... | Vanderburg |
| J. Y. Welborn, Evansville..... | Vanderburg |
| L. Worsham, Evansville..... | Vanderburg |
| M. W. Rothrock, Evansville..... | Vanderburg |
| Geo. P. Hodson, Evansville..... | Vanderburg |
| J. B. Garber, Dunkirk..... | Jay |
| E. C. Garber, Dunkirk..... | Jay |
| C. C. Mills, Red Key..... | Jay |
| J. T. Dickes, Portland..... | Jay |
| I. G. Sims, Portland..... | Jay |
| G. Chaney, Portland..... | Jay |

| NAME AND ADDRESS | COUNTY SOCIETY |
|---------------------------------------|----------------|
| Geo. Cring, Portland..... | Jay |
| G. L. Perry, Portland..... | Jay |
| R. E. Brokaw, Portland..... | Jay |
| A. Stinson, Athens..... | Fulton |
| W. S. Shaffer, Rochester..... | Fulton |
| A. Brown, Rochester..... | Fulton |
| C. E. Gould, Rochester..... | Fulton |
| L. N. Rannels, Rochester..... | Fulton |
| F. C. Dielman, Fulton..... | Fulton |
| H. W. Taylor, Rochester..... | Fulton |
| E. L. Waite, Rochester..... | Fulton |
| G. E. Hoffman, Rochester..... | Fulton |
| C. L. Slonaker, Leiters Ford..... | Fulton |
| C. J. Loring, Rochester..... | Fulton |
| Ira J. Gill, Dugger..... | Sullivan |
| J. B. Maple, Shelburn..... | Sullivan |
| Geo. W. Pirtle, Carlisle..... | Sullivan |
| C. F. Briggs, Sullivan..... | Sullivan |
| E. M. Corbin, Sullivan..... | Sullivan |
| Joseph Freeman, Sullivan..... | Sullivan |
| W. A. Hunt, Evansville..... | Vanderburg |
| L. B. Bitz, Evansville..... | Vanderburg |
| W. A. Fritsch, Evansville..... | Vanderburg |
| F. L. Davis, Evansville..... | Vanderburg |
| Chas. Knapp, Evansville..... | Vanderburg |
| W. F. Clippinger, Evansville..... | Vanderburg |
| W. R. Cleveland, Evansville..... | Vanderburg |
| J. H. Kerth, Evansville..... | Vanderburg |
| L. D. Brose, Evansville..... | Vanderburg |
| C. H. Viehe, Evansville..... | Vanderburg |
| A. M. Hayden, Evansville..... | Vanderburg |
| B. L. W. Floyd, Evansville..... | Vanderburg |
| J. W. Phares, Evansville..... | Vanderburg |
| Walter S. Pollard, Evansville..... | Vanderburg |
| C. A. Hartley, Evansville..... | Vanderburg |
| C. G. Viehe, Evansville..... | Vanderburg |
| E. Linthicum, Evansville..... | Vanderburg |
| B. J. Knapp, Evansville..... | Vanderburg |
| M. Ravdin, Evansville..... | Vanderburg |
| L. E. Fritsch, Evansville..... | Vanderburg |
| Edwin Walker, Evansville..... | Vanderburg |
| Garrett Pigman, Liberty..... | Union |
| J. E. Morris, Liberty..... | Union |
| Everett R. Beard, Liberty..... | Union |
| Franklin T. Dubois, Liberty..... | Union |
| H. M. Egolf, Liberty..... | Union |
| W. H. Hawley, Liberty..... | Union |
| W. A. Thompson, Liberty..... | Union |
| C. W. Smith, Muncie..... | Delaware |
| O. W. Owens, Muncie..... | Delaware |
| F. W. Black, Ligonier..... | Noble |
| W. F. Carver, Albion..... | Noble |
| F. R. Clapp, Ligonier..... | Noble |
| A. G. Coyner, Kendallville..... | Noble |
| W. H. Franks, Ligonier..... | Noble |
| O. P. Franks, Churubusco..... | Noble |
| C. B. Goodwin, Kendallville..... | Noble |
| C. A. Gardner, Kendallville..... | Noble |
| J. L. Gilbert, Kendallville..... | Noble |
| W. T. Green, Albion..... | Noble |
| J. W. Hays, Albion..... | Noble |
| W. H. Hays, Albion..... | Noble |
| C. F. Hardy, Albion..... | Noble |
| E. A. Ish, Laotto..... | Noble |
| Donald D. Johnston, Kendallville..... | Noble |
| H. O. King, Kendallville..... | Noble |
| Carlos Lane, Kimmell..... | Noble |
| J. E. Luckey, Wolf Lake..... | Noble |
| F. C. Maloney, Avilla..... | Noble |
| B. E. Miller, Albion..... | Noble |
| J. W. Morr, Albion..... | Noble |
| J. H. Nye, Cromwell..... | Noble |
| B. Pulskamp, Rome City..... | Noble |
| N. J. Shook, Kendallville..... | Noble |
| W. A. Shobe, Ligonier..... | Noble |
| C. A. Seymoure, Wawaka..... | Noble |
| H. G. Tucker, Cromwell..... | Noble |

| NAME AND ADDRESS | COUNTY SOCIETY | NAME AND ADDRESS | COUNTY SOCIETY |
|------------------------------------|-----------------|--|-----------------|
| W. M. Veazey, Avilla..... | Noble | R. Stephenson, West Lebanon..... | Fountain-Warren |
| W. S. Williams, Kendallville..... | Noble | A. C. Holley, Attica..... | Fountain-Warren |
| U. B. G. Ewing, Richmond..... | Wayne | H. W. Dale, West Lebanon..... | Fountain-Warren |
| J. N. Study, Cambridge City..... | Wayne | S. W. Weir, Gates..... | Fountain-Warren |
| J. E. Wright, Cambridge City..... | Wayne | M. T. Case, Attica..... | Fountain-Warren |
| D. W. Stevenson, Richmond..... | Wayne | Geo. Rowland, Covington..... | Fountain-Warren |
| S. J. Eichel, Evansville..... | Vanderburg | A. L. Spinning, Covington..... | Fountain-Warren |
| W. F. Cleveland, Evansville..... | Vanderburg | C. L. Myers, Covington..... | Fountain-Warren |
| J. W. Stork, Evansville..... | Vanderburg | J. Roy Burlington, Attica..... | Fountain-Warren |
| C. M. Lowder, Dugger..... | Sullivan | T. W. Kelsey, Attica..... | Fountain-Warren |
| T. S. Bedwell, Dugger..... | Sullivan | S. S. DeLancey, Williamsport..... | Fountain-Warren |
| F. M. Dukes, Dugger..... | Sullivan | C. J. Finney, Attica..... | Fountain-Warren |
| E. M. Deputy, Dugger..... | Sullivan | C. G. Beckett, Attica..... | Fountain-Warren |
| R. M. Copeland, Vevay..... | Switzerland | Halstead S. Murat, Jeffersonville..... | Clark |
| J. P. Ward, Vevay..... | Switzerland | J. M. Howes, Sellersburg..... | Clark |
| L. H. Bear, Vevay..... | Switzerland | C. F. C. Hancock, Jeffersonville..... | Clark |
| Scott Culbertson, Vevay..... | Switzerland | C. C. Crum, Jeffersonville..... | Clark |
| Hugh M. Thibaud, Vevay..... | Switzerland | Marshall Varble, Jeffersonville..... | Clark |
| J. W. Smith, Vevay..... | Switzerland | David Cohen, Jeffersonville..... | Clark |
| G. W. Copeland, Moorefield..... | Switzerland | O. P. Graham, Jeffersonville..... | Clark |
| J. H. Shadday, Vevay..... | Switzerland | Austin Funk, Jeffersonville..... | Clark |
| B. F. Kuhn, Elkhart..... | Elkhart | I. N. Ruddell, Jeffersonville..... | Clark |
| F. A. Benham, Elkhart..... | Elkhart | E. N. Flynn, Jeffersonville..... | Clark |
| E. E. Ash, Goshen..... | Elkhart | D. C. Peyton, Jeffersonville..... | Clark |
| A. C. Yoder, Goshen..... | Elkhart | S. B. Elrod, Henryville..... | Clark |
| C. L. Dreese, Goshen..... | Elkhart | W. M. V. Howland, Howard Park..... | Clark |
| D. L. Miller, Goshen..... | Elkhart | Frank M. Johnson, Utica..... | Clark |
| F. M. Freeman, Goshen..... | Elkhart | R. S. Taggart, New Washington..... | Clark |
| G. W. Kirby, Goshen..... | Elkhart | E. F. Tindal, Muncie..... | Delaware |
| W. H. Krieder, Goshen..... | Elkhart | P. C. Bentle, Greensburg..... | Decatur |
| M. K. Krieder, Goshen..... | Elkhart | C. F. Kercheval, Greensburg..... | Decatur |
| J. A. Snapp, Goshen..... | Elkhart | B. S. White, Greensburg..... | Decatur |
| J. A. Cook, Goshen..... | Elkhart | I. M. Sanders, Greensburg..... | Decatur |
| H. K. Lemon, Goshen..... | Elkhart | J. M. Wood, Greensburg..... | Decatur |
| A. S. Hollingsworth, Goshen..... | Elkhart | R. M. Thomas, Greensburg..... | Decatur |
| W. B. Page, Goshen..... | Elkhart | Chas. R. Bird, Greensburg..... | Decatur |
| B. F. Whitmer, Goshen..... | Elkhart | P. R. Tindall, Greensburg..... | Decatur |
| G. A. Whippy, Goshen..... | Elkhart | G. S. Crawford, Clifty..... | Decatur |
| I. J. Becknell, Goshen..... | Elkhart | P. E. Clark, Greensburg..... | Decatur |
| H. W. Eby, Goshen..... | Elkhart | Harley S. McKee, New Point..... | Decatur |
| A. A. Norris, Elkhart..... | Elkhart | O. F. Welch, Westport..... | Decatur |
| I. W. Short, Elkhart..... | Elkhart | Will E. Thomas, Clarksburg..... | Decatur |
| W. A. Stauffer, Elkhart..... | Elkhart | John Welch, Letts..... | Decatur |
| G. W. Spohn, Elkhart..... | Elkhart | J. C. Hill, Westport..... | Decatur |
| James A. Work, Jr., Elkhart..... | Elkhart | D. E. Douglas, Greensburg..... | Decatur |
| L. A. Spaulding, Bluffton..... | Wells | F. H. Austin, Madison..... | Jefferson |
| C. H. Mead, Bluffton..... | Wells | J. H. Christie, North Madison..... | Jefferson |
| F. M. Dicason, Bluffton..... | Wells | R. W. Cochran, Madison..... | Jefferson |
| A. W. Brown, Bluffton..... | Wells | C. C. Copeland, Madison..... | Jefferson |
| J. C. Fulton, Bluffton..... | Wells | A. J. Kimmel, Hudson..... | Steuben |
| Louis Severin, Bluffton..... | Wells | Mary Ritter, Angola..... | Steuben |
| D. C. Wybourn, Ossian..... | Wells | W. H. Lane, Angola..... | Steuben |
| F. A. Metts, Bluffton..... | Wells | H. D. Wood, Angola..... | Steuben |
| E. W. Dyar, Ossian..... | Wells | T. J. Creel, Angola..... | Steuben |
| I. N. Hatfield, Bluffton..... | Wells | O. M. Swantusch, Angola..... | Steuben |
| F. W. Garrett, Liberty Center..... | Wells | T. F. Wood, Angola..... | Steuben |
| Geo. E. Fulton, Bluffton..... | Wells | J. F. Cameron, Hamilton..... | Steuben |
| Geo. B. Morris, Petroleum..... | Wells | P. C. Barnard, Hamilton..... | Steuben |
| Thomas Morris, Mt. Zion..... | Wells | P. H. Sutherland, Angola..... | Steuben |
| J. W. McKinney, Bluffton..... | Wells | H. A. Nichols, Flint..... | Steuben |
| S. A. Shoemaker, Bluffton..... | Wells | F. B. Humphreys, Angola..... | Steuben |
| L. H. Cook, Bluffton..... | Wells | G. N. Lake, Pleasant Lake..... | Steuben |
| F. G. Jackson, Muncie..... | Delaware | R. L. Wade, Fremont..... | Steuben |
| F. E. Hill, Muncie..... | Delaware | B. F. Hoy, Syracuse..... | Kosciusko |
| Clay A. Ball, Muncie..... | Delaware | Lorin W. Smith, Wabash..... | Wabash |
| Geo. R. Andrews, Muncie..... | Delaware | L. E. Jewett, Wabash..... | Wabash |
| J. H. Williams, Cowan..... | Delaware | F. S. Kitson, North Manchester..... | Wabash |
| F. H. Pugh, Williamsport..... | Fountain-Warren | H. H. Deen, Leavenworth..... | Crawford |
| W. A. Johnson, Perrysville..... | Fountain-Warren | G. B. Hammond, English..... | Crawford |
| E. W. Kirk, Veedersburg..... | Fountain-Warren | F. B. Gobbel, English..... | Crawford |
| A. L. Ratcliff, Kingman..... | Fountain-Warren | C. D. Luckett, English..... | Crawford |
| F. S. Cutlbert, Kingman..... | Fountain-Warren | N. W. King, Taswell..... | Crawford |
| O. F. Wellenreiter, Gessie..... | Fountain-Warren | J. J. Johnson, Milltown..... | Crawford |
| W. H. Ross, Veedersburg..... | Fountain-Warren | G. W. Baylor, Milltown..... | Crawford |
| C. B. McCord, Veedersburg..... | Fountain-Warren | P. T. Grant, Marengo..... | Crawford |
| W. H. Dinsmore, Kramer..... | Fountain-Warren | J. Myers, Alton..... | Crawford |
| A. M. Sullivan, Attica..... | Fountain-Warren | U. G. Kelso, Dubois..... | Dubois |

| NAME AND ADDRESS | COUNTY SOCIETY | NAME AND ADDRESS | COUNTY SOCIETY |
|---|----------------|---|----------------|
| M. M. Parsons, Schnellville..... | Dubois | Chas. R. Sowder, Pennway Bldg., Indianapolis, Marion | |
| J. P. Salb, Jasper..... | Dubois | M. Joseph Barry, 857 W. New York St., Indianapolis..... | Marion |
| L. A. Salb, Jasper..... | Dubois | Albert E. Sterne, 1820 E. 10th St., Indianapolis..... | Marion |
| L. C. Lukemeyer, Huntingburg..... | Dubois | C. W. Corey, Hartford City..... | Blackford |
| E. G. Lukemeyer, Huntingburg..... | Dubois | E. D. Shadday, Montpelier..... | Blackford |
| C. W. Schwartz, Huntingburg..... | Dubois | J. C. Kirkpatrick, Roll..... | Blackford |
| II. C. Knapp, Huntingburg..... | Dubois | C. A. Sellers, Hartford City..... | Blackford |
| E. F. Steinkamp, Huntingburg..... | Dubois | John Sellers, Hartford City..... | Blackford |
| Eugene A. Sturm, Jasper..... | Dubois | Samuel Hollis, Hartford City..... | Blackford |
| S. L. McKinney, Huntingburg..... | Dubois | C. F. Sexhauer, Hartford City..... | Blackford |
| Clarence G. Rea, Muneie..... | Delaware | R. E. Dewces, Hartford City..... | Blackford |
| N. D. Berry, Muneie..... | Delaware | W. A. Hollis, Hartford City..... | Blackford |
| L. O. Williams, Anderson..... | Madison | J. A. Craig, Greenwood..... | Johnson |
| J. Stewart, Madison..... | Madison | L. P. V. Williams, Whiteland..... | Johnson |
| F. J. Keller, Alexandria..... | Madison | Oran A. Province, Franklin..... | Johnson |
| T. O. Armfield, Elwood..... | Madison | R. W. Terhune, Whiteland..... | Johnson |
| Etta Charles, Summitville..... | Madison | J. H. Black, Lebanon..... | Boone |
| H. E. Jones, Anderson..... | Madison | T. B. Johnson, Jamestown..... | Boone |
| F. F. Mendenhall, Elwood..... | Madison | T. A. Bounell, Jamestown..... | Boone |
| L. F. Mobley, Summitville..... | Madison | C. D. Umberhine, Lebanon, R. R. 9..... | Boone |
| M. M. Clapper, Hartford City..... | Blackford | K. R. Ruddell, Lebanon..... | Boone |
| F. M. Reynolds, Montpelier..... | Blackford | W. H. Williams, Lebanon..... | Boone |
| I. C. Barnes, 160 E. Market, Indianapolis.... | Marion | J. B. Rogers, Michigan City..... | La Porte |
| E. L. Swadener, Keshena, Wis. | | Bo. Howell, La Porte..... | La Porte |
| Geo. N. Wells, 2126 College Ave., Indianapolis, Marion | | E. G. Blinks, Michigan City..... | La Porte |
| George W. Lee, West Newton, Ind. | Marion | Geo. Osborn, La Porte..... | La Porte |
| S. H. Caraway, 1810 Montealm, Indianapolis, Marion | | Whitefield Bowers, Michigan City..... | La Porte |
| J. H. Payne, Julietta, Ind. | | D. A. Buek, La Porte..... | La Porte |
| Jas. M. Smith, 3026 E. 10th St., Indianapolis, Marion | | B. W. Hollenbeck, Westville..... | La Porte |
| E. R. Bush, 1031 S. Meridian, Indianapolis...Marion | | J. W. Snyder, Michigan City..... | La Porte |
| Goethe Link, K. of P. Bldg., Indianapolis...Marion | | J. E. Whitehill, Rolling Prairie..... | La Porte |
| P. J. Watters, Cent. Insane Hosp., Indianapolis, Marion | | H. H. Martin, La Porte..... | La Porte |
| David Ross, Board of Trade Bldg., Indianapolis.....Marion | | H. O. Mertz, La Porte..... | La Porte |
| Frank Foxworthy, Board of Trade Bldg., Indianapolis.....Marion | | F. V. Martin, Michigan City..... | La Porte |
| T. C. Kennedy, Hume-Mansur Bldg., Indianapolis.....Marion | | J. N. Kelly, Westville..... | La Porte |
| J. N. Hurty, State Board of Health, Indianapolis.....Marion | | Jas. Fargher, La Porte..... | La Porte |
| Frank L. Truitt, Board of Trade Bldg., Indianapolis.....Marion | | D. W. Ross, La Porte..... | La Porte |
| O. N. Torian, Hume-Mansur Bldg., Indianapolis.....Marion | | L. D. Eley, Plymouth..... | Marshall |
| Thos. L. Sullivan, Newton Claypool Bldg., Indianapolis.....Marion | | J. W. Eidson, Plymouth..... | Marshall |
| F. C. Walker, 3007 N. Illinois, Indianapolis...Marion | | J. B. Shipley, Burr Oak..... | Marshall |
| Geo. H. F. House, 3015 N. Illinois, Indianapolis, Marion | | S. C. Loring, Plymouth..... | Marshall |
| S. E. Earp, 24½ Kentucky Ave., Indianapolis, Marion | | A. A. Thompson, Tyner..... | Marshall |
| J. L. Thompson, Amer. Central Life Bldg., Indianapolis.....Marion | | B. W. S. Wiseman, Culver..... | Marshall |
| H. R. McKinstry, Willoughby Bldg., Indianapolis.....Marion | | C. F. Holtzendorff, Plymouth..... | Marshall |
| L. C. Lukenbill, Marco..... | Greene | H. P. Preston, Plymouth..... | Marshall |
| J. W. Lisman, New Lebanon..... | Sullivan | L. Johnson, Bourbon..... | Marshall |
| John L. Durham, Sullivan, R. R. No. 2..... | Sullivan | E. E. Parker, Culver..... | Marshall |
| J. J. Parker, Merom..... | Sullivan | John J. Hardy, La Paz..... | Marshall |
| C. W. Ashbury, Hymera..... | Sullivan | Frank L. Mitchell, Everton..... | Fayette |
| James S. Baker, Spurgeon..... | Pike | Stanton E. Gordin, Connersville..... | Fayette |
| E. S. Imel, Petersburg..... | Pike | O. M. Dale, Connersville..... | Fayette |
| J. T. Kime, Petersburg..... | Pike | R. H. Elliott, Connersville..... | Fayette |
| W. M. Hunter, Petersburg..... | Pike | E. Derbyshire, Kissimmee, Fla. | |
| T. R. Rice, Petersburg..... | Pike | R. W. Sipe, Orange..... | Fayette |
| A. R. Logan, Algiers..... | Pike | S. N. Hamilton, Connersville..... | Fayette |
| S. R. Clark, Petersburg..... | Pike | F. J. Spilman, Connersville..... | Fayette |
| W. J. Bethel, Winslow..... | Pike | H. M. Lamberson, Connersville..... | Fayette |
| Clarence Abbott, Otwell..... | Pike | J. R. Mountain, Connersville..... | Fayette |
| T. D. McClasson, Winslow..... | Pike | O. P. M. Ford, Connersville..... | Fayette |
| G. L. Ireland, Winslow..... | Pike | J. H. Clark, Connersville..... | Fayette |
| T. W. Basinger, Petersburg..... | Pike | J. Richards, Fulton..... | Fulton |
| Harry G. Gaylord, 1066 Virginia Ave., Indianapolis.....Marion | | U. C. Souder, Auburn..... | De Kalb |
| L. A. Ensminger, Newton Claypool Bldg., Indianapolis.....Marion | | W. W. Swarts, Auburn..... | De Kalb |
| Arthur E. Guedel, Newton Claypool Bldg., Indianapolis.....Marion | | A. B. Darby, Waterloo..... | De Kalb |
| Geo. A. Coble, New Augusta, Ind. | Marion | M. E. Klinger, Garrett..... | De Kalb |
| J. J. Boaz, 240 W. New York St., Indianapolis, Marion | | F. A. King, Garrett..... | De Kalb |
| | | F. S. Brown, Corunna..... | De Kalb |
| | | C. S. Stewart, Auburn..... | De Kalb |
| | | L. M. Geisinger, Auburn..... | De Kalb |
| | | A. E. Bulson, Jr., Fort Wayne..... | Allen |
| | | W. O. Gross, Fort Wayne..... | Allen |
| | | G. L. Greenawalt, Fort Wayne..... | Allen |
| | | R. M. Bolman, Fort Wayne..... | Allen |
| | | D. J. Mercer, Fort Wayne..... | Allen |
| | | II. O. Bruggeman, Fort Wayne..... | Allen |

| NAME AND ADDRESS | COUNTY | SOCIETY | NAME AND ADDRESS | COUNTY | SOCIETY |
|-------------------------------------|------------|---------|--|------------|---------|
| B. Van Sweringen, Fort Wayne..... | Allen | | Francis C. Haukins, Evansville..... | Vanderburg | |
| G. W. McCaskey, Fort Wayne..... | Allen | | T. H. Taylor, Evansville..... | Vanderburg | |
| B. P. Weaver, Fort Wayne..... | Allen | | M. A. Tremain, Adams..... | Decatur | |
| Lyman T. Rawles, Fort Wayne..... | Allen | | E. C. English, Rensselaer..... | Jasper | |
| A. L. Schneider, Fort Wayne..... | Allen | | M. D. Gwin, Rensselaer..... | Jasper | |
| H. V. Blosser, Fort Wayne..... | Allen | | F. H. Hemphill, Rensselaer..... | Jasper | |
| E. L. Annis, La Porte..... | La Porte | | A. R. Kresler, Rensselaer..... | Jasper | |
| R. B. Jones, La Porte..... | La Porte | | I. M. Washburn, Rensselaer..... | Jasper | |
| F. R. Leeds, Michigan City..... | La Porte | | E. N. Loy, Rensselaer..... | Jasper | |
| V. R. Warren, Michigan City..... | La Porte | | A. P. Rainier, Remington..... | Jasper | |
| J. V. Kerrigan, Michigan City..... | La Porte | | Emil Besser, Remington..... | Jasper | |
| J. J. Kerrigan, Michigan City..... | La Porte | | L. N. Wells, De Motte..... | Jasper | |
| L. A. Wilson, Michigan City..... | La Porte | | M. B. Fyfe, Wheatfield..... | Jasper | |
| A. L. Knapp, Michigan City..... | La Porte | | L. B. Hill, Seymour..... | Jackson | |
| Amie Killough, Michigan City..... | La Porte | | H. R. Luckey, Seymour..... | Jackson | |
| G. C. Kasdorf, Michigan City..... | La Porte | | J. H. Niles, Seymour..... | Jackson | |
| Nellie Cole, Michigan City..... | La Porte | | J. M. Shields, Seymour..... | Jackson | |
| M. L. Dresher, Michigan City..... | La Porte | | H. R. Kyte, Seymour..... | Jackson | |
| J. N. Ledbetter, Michigan City..... | La Porte | | J. H. Carter, Seymour..... | Jackson | |
| Rose A. Bowers, Michigan City..... | La Porte | | G. G. Graessle, Seymour..... | Jackson | |
| Paul E. Bowers, Michigan City..... | La Porte | | A. G. Osterman, Seymour..... | Jackson | |
| A. G. Tillotson, Michigan City..... | La Porte | | E. D. Wright, Seymour..... | Jackson | |
| O. L. Sutherland, La Porte..... | La Porte | | C. E. Gillespie, Seymour..... | Jackson | |
| W. Eberhardt, Michigan City..... | La Porte | | M. F. Gerrish, Seymour..... | Jackson | |
| F. T. Wilcox, La Porte..... | La Porte | | G. H. Kamman, Seymour..... | Jackson | |
| A. R. Simon, La Porte..... | La Porte | | C. A. Hunter, Reddington..... | Jackson | |
| Chas. E. Burleson, La Porte..... | La Porte | | L. Ruddick, Seymour..... | Jackson | |
| M. S. Smith, La Porte..... | La Porte | | G. O. Barnes, Seymour..... | Jackson | |
| R. B. Short, Union Mills..... | La Porte | | D. J. Cummings, Sr., St. Medora..... | Jackson | |
| H. H. Long, La Porte..... | La Porte | | N. G. Harrod, Tampico..... | Jackson | |
| J. S. Martin, Rolling Prairie..... | La Porte | | J. K. Ritter, Seymour..... | Jackson | |
| Wm. Wilkinshaw, Stillwell..... | La Porte | | A. May, Crothersville..... | Jackson | |
| J. M. Vanderburg, Albany..... | Delaware | | D. Joe Cummings, Brownstown..... | Jackson | |
| F. N. Williams, Tell City..... | Perry | | Fred Heller, Brownstown..... | Jackson | |
| J. E. Taylor, Leopold..... | Perry | | D. L. Perrin, Austin..... | Jackson | |
| J. H. Lee, Rome..... | Perry | | J. M. Jenkins, Cortland..... | Jackson | |
| Wm. H. Muelchi, Tell City..... | Perry | | Neal Matlock, Medora..... | Jackson | |
| H. S. Dome, Tell City..... | Perry | | J. R. Wilson, Hebron..... | Porter | |
| D. C. Dome, Tell City..... | Perry | | E. M. Shanklin, Hammond..... | Lake | |
| E. R. Snyder, Troy..... | Perry | | Wm. D. Weis, Hammond..... | Lake | |
| W. T. Hargis, Tell City..... | Perry | | G. F. Bicknell, Hammond..... | Lake | |
| S. D. Adams, Brewersville..... | Jennings | | J. C. Gibbs, Crown Point..... | Lake | |
| W. H. Stemm, North Vernon..... | Jennings | | W. F. Howat, Hammond..... | Lake | |
| O. Gaddy, Paris Crossing..... | Jennings | | Robert Spear, East Chicago..... | Lake | |
| W. L. Grossman, North Vernon..... | Jennings | | Antonio Giorgi, Gary..... | Lake | |
| A. O. Dobbins, Wheeler..... | Porter | | W. E. Putnam, Whiting..... | Lake | |
| G. H. Stoner, Valparaiso..... | Porter | | H. L. Iddings, Merrillville..... | Lake | |
| D. J. Loring, Valparaiso..... | Porter | | C. C. Brink, Hobart..... | Lake | |
| F. W. Mitchell, Valparaiso..... | Porter | | B. W. Chidlaw, Hammond..... | Lake | |
| J. A. Ryan, Valparaiso..... | Porter | | H. G. Merz, Hammond..... | Lake | |
| R. D. Blount, Valparaiso..... | Porter | | T. W. Kohr, Hammond, Robertsdale Sta. | Lake | |
| G. R. Douglas, Valparaiso..... | Porter | | Geo. E. Miller, Hammond..... | Lake | |
| O. B. Nesbit, Valparaiso..... | Porter | | H. E. Sharrer, Hammond..... | Lake | |
| C. O. Wiltfong, Chesterton..... | Porter | | T. W. Oberlin, Hammond..... | Lake | |
| R. H. Axe, Chesterton..... | Porter | | R. O. Ostrowski, Hammond..... | Lake | |
| J. C. Carson, Valparaiso..... | Porter | | S. M. Goldberger, East Chicago..... | Lake | |
| J. F. Take, Valparaiso..... | Porter | | John P. Stawicki, Indiana Harbor..... | Lake | |
| A. P. Letherman, Valparaiso..... | Porter | | G. W. Miller, East Chicago..... | Lake | |
| E. H. Powell, Valparaiso..... | Porter | | F. J. McMichael, Gary..... | Lake | |
| C. Edwin Ferree, Hebron..... | Porter | | E. E. Evans, Gary..... | Lake | |
| C. P. Moser, Valparaiso..... | Porter | | Franklin Petry, Gary..... | Lake | |
| P. D. Noland, Kouts..... | Porter | | Eleanor Scull, Crown Point..... | Lake | |
| R. P. Blood, Hebron..... | Porter | | C. W. Yarrington, Gary..... | Lake | |
| H. E. Gowland, Valparaiso..... | Porter | | H. M. Hosmer, Gary..... | Lake | |
| K. K. Wheelock, Fort Wayne..... | Allen | | O. O. Melton, Hammond..... | Lake | |
| E. F. De Vaux, Fort Wayne..... | Allen | | Wm. A. Weiser, Indiana Harbor..... | Lake | |
| H. E. Glock, Fort Wayne..... | Allen | | E. L. Schaible, Gary..... | Lake | |
| H. A. Ducmling, Fort Wayne..... | Allen | | Geo. Dewey Brannon, Crown Point..... | Lake | |
| B. A. Blasser, Fort Wayne..... | Allen | | S. Herskovitz, Indiana Harbor..... | Lake | |
| Philip Titus, Fort Wayne..... | Allen | | G. L. Verplank, Gary..... | Lake | |
| E. E. Morgan, Fort Wayne..... | Allen | | A. A. Young, Hammond..... | Lake | |
| M. F. Schick, Fort Wayne..... | Allen | | W. P. Alexander, Gary..... | Lake | |
| A. F. Phillips, Fort Wayne..... | Allen | | Frank W. Smith, Gary..... | Lake | |
| G. Van Sweringen, Fort Wayne..... | Allen | | David R. Johns, East Chicago..... | Lake | |
| Henry Neuneecker, Evansville..... | Vanderburg | | W. A. Buchanan, Hammond..... | Lake | |
| P. Y. McCoy, Evansville..... | Vanderburg | | C. W. Campbell, Hammond..... | Lake | |
| J. W. Lorenz, Evansville..... | Vanderburg | | E. D. Skeen, Gary..... | Lake | |

| NAME AND ADDRESS | COUNTY SOCIETY | NAME AND ADDRESS | COUNTY SOCIETY |
|---|----------------|--|----------------|
| Andrew Hoffman, Hammond | Lake | H. E. Gabe, Hume-Mansur Bldg., Indianapolis | Marion |
| J. W. Iddings, Lowell | Lake | Alfred Henry, Board of Trade Bldg., Indianapolis | Marion |
| G. H. Hoskins, Whiting | Lake | O. C. Lukenbill, 2219 E. Washington, Indianapolis | Marion |
| L. M. Friedrich, Hobart | Lake | S. A. Furniss, 132 W. New York St., Indianapolis | Marion |
| E. A. Gilson, Hammond | Lake | L. M. Dunning, 1529 E. 17th St., Indianapolis | Marion |
| L. H. Kelly, Hammond | Lake | Chas. C. Haskell, 3033 Sutherland Ave., Indianapolis | Marion |
| W. L. Hughes, Indiana Harbor | Lake | Jos. J. Gramling, 3224 Northwestern Ave., Indianapolis | Marion |
| W. J. White, Gary | Lake | Chas. D. Humes, 1820 E. 10th St., Indianapolis | Marion |
| H. J. White, Hammond | Lake | H. S. Thurston, Willoughby Bldg., Indianapolis | Marion |
| A. J. Lauer, Whiting | Lake | W. I. Scott, Kokomo | Howard |
| Geo. Orf, Indiana Harbor | Lake | L. Deweese, Hemlock | Howard |
| W. E. Amy, Corydon | Harrison | E. Cox, Kokomo | Howard |
| Frank E. Wolfe, Corydon | Harrison | W. J. Martin, Kokomo | Howard |
| Frank T. Tyler, Crandall | Harrison | R. H. Smith, Kokomo | Howard |
| O. R. Myer, Lanesville | Harrison | S. R. Chancellor, Kokomo | Howard |
| John C. Bottorff, Corydon | Harrison | O. D. Hutto, Kokomo | Howard |
| Z. C. Wolf, Corydon | Harrison | N. C. Hamilton, Kokomo | Howard |
| Henry Bopp, Palmyra | Harrison | T. C. Cochran, Kokomo | Howard |
| L. L. Bulleit, Depaw | Harrison | R. F. Scott, Kokomo | Howard |
| Wm. Daniel, Corydon | Harrison | E. U. Powell, Greentown | Howard |
| E. B. Mann, Muncie | Delaware | A. H. Miller, Russiaville | Howard |
| A. A. Cecil, Muncie | Delaware | J. H. Carnelley, Kokomo | Howard |
| C. P. Cook, New Albany | Floyd | W. H. McClurg, Kokomo | Howard |
| H. B. Shecklett, New Albany | Floyd | C. J. Adams, Kokomo | Howard |
| F. W. Hazelwood, New Albany | Floyd | L. M. Knepple, Kokomo | Howard |
| F. H. Wilcox, New Albany | Floyd | G. D. Marshall, Kokomo | Howard |
| J. F. Weathers, New Albany | Floyd | J. W. Wright, Kokomo | Howard |
| W. L. Starr, New Albany | Floyd | J. L. Puckett, Kokomo | Howard |
| John Hazelwood, New Albany | Floyd | E. M. Shenk, Kokomo | Howard |
| C. P. Davis, Galena | Floyd | F. N. Murray, West Middleton | Howard |
| Albert Kinberger, Galena | Floyd | H. C. Miller, Greentown | Howard |
| W. J. Leach, New Albany | Floyd | R. P. Schuler, Kokomo | Howard |
| R. S. Rutherford, New Albany | Floyd | Wm. R. Boggs, Salem | Washington |
| J. E. Bird, New Albany | Floyd | R. J. Wilson, Salem | Washington |
| C. B. Barker, New Albany | Floyd | Claude B. Paynter, Campbellsburg | Washington |
| W. Tebault, New Albany | Floyd | L. H. Eshelman, Marion | Grant |
| E. P. Easley, New Albany | Floyd | D. A. Holliday, Fairmount | Grant |
| Wm. Winstanley, New Albany | Floyd | L. H. Conley, Gas City | Grant |
| J. W. Baxter, New Albany | Floyd | J. W. Patterson, Fairmount | Grant |
| C. W. McIntyre, New Albany | Floyd | C. O. Bechtol, Marion | Grant |
| Anna McKamy, New Albany | Floyd | G. G. Eckhart, Marion | Grant |
| Wm. Moore, New Albany | Floyd | C. J. Overman, Marion | Grant |
| C. C. Funk, New Albany | Floyd | O. W. McQuown, Marion | Grant |
| H. S. Wolfe, New Albany | Floyd | J. F. Loomis, Marion | Grant |
| R. W. Harris, New Albany | Floyd | R. E. Egbert, Marion | Grant |
| R. K. Brown, New Albany | Floyd | W. A. Fankboner, Marion | Grant |
| H. K. Engleman, Georgetown | Floyd | A. A. Hamilton, Marion | Grant |
| G. D. Baker, Georgetown | Floyd | V. V. Cameron, Marion | Grant |
| Jno. W. Wray, 226½ N. Blvd., Atlanta, Ga. | | G. G. Richardson, Van Buren | Grant |
| J. B. Duncan, Bedford | Lawrence | J. M. Toney, Van Buren | Grant |
| E. E. Mitchell, Bedford | Lawrence | Glen Henley, Fairmount | Grant |
| R. B. Short, Bedford | Lawrence | L. D. Holliday, Fairmount | Grant |
| M. Simpson, Bedford | Lawrence | E. M. Trook, Marion | Grant |
| J. Heitger, Bedford | Lawrence | N. B. Powell, Marion | Grant |
| J. T. McFarlin, Bedford | Lawrence | G. D. Kimball, Marion | Grant |
| T. W. Bullitt, Rivervale | Lawrence | I. S. J. Crumrine, Sweetser | Grant |
| John A. Gibbons, Mitchell | Lawrence | G. W. Daniels, Sweetser | Grant |
| J. R. Pearson, Bedford | Lawrence | E. O. Harrold, Marion | Grant |
| C. H. Emery, Bedford | Lawrence | H. S. Jeffrey, Upland | Grant |
| A. J. McDonald, Bedford | Lawrence | A. W. Lloyd, Hammond | Grant |
| Perry Woolery, Heltonville | Lawrence | E. T. Stout, Upland | Grant |
| C. Dollens, Avoca | Lawrence | G. R. Daniels, Marion | Grant |
| A. B. Norman, Bedford | Lawrence | O. M. Davis, Marion | Grant |
| E. L. Perkins, Bedford | Lawrence | Jno. T. Barnett, Jonesboro | Grant |
| S. W. Smith, Leesville | Lawrence | B. C. Dale, Marion | Grant |
| N. E. Mattox, Bedford | Lawrence | J. E. Johnson, Marion | Grant |
| F. S. Hunter, Bedford | Lawrence | Harry Williamson, Marion | Grant |
| Geo. L. Gibbons, Mitchell | Lawrence | J. C. Knight, Jonesboro | Grant |
| J. C. Kelley, Mitchell | Lawrence | Harry Miller, Marion | Grant |
| J. R. Andrews, Rivervale | Lawrence | Floyd G. Campbell, Marion | Grant |
| Jasper Cain, Heltonville | Lawrence | C. B. Vigus, Point Isabell | Grant |
| C. E. Raiden, Bedford | Lawrence | Albert Davis, Marion | Grant |
| Harvey Voyles, Bedford | Lawrence | | |
| W. C. Sherwood, Mitchell | Lawrence | | |
| J. D. Byrnes, Mitchell | Lawrence | | |
| A. C. Kimberlin, Willoughby Bldg., Indianapolis | Marion | | |

| NAME AND ADDRESS | COUNTY | SOCIETY | NAME AND ADDRESS | COUNTY | SOCIETY |
|---|----------|---------|---|------------|---------|
| C. R. Brown, Marion..... | Grant | | W. F. Sharrer, Delphi..... | Carroll | |
| M. T. Shively, Marion..... | Grant | | P. W. Conway, Delphi..... | Carroll | |
| Jos. Maurer, Marion..... | Grant | | B. W. Egan, Flora, R. F. D. 1..... | Carroll | |
| M. L. Bridge, Marion..... | Grant | | M. D. Callone, Flora..... | Carroll | |
| C. F. Fleming, Elkhart..... | Elkhart | | C. M. Kennedy, Camden..... | Carroll | |
| J. C. Fleming, Elkhart..... | Elkhart | | Eva N. Kennedy, Camden..... | Carroll | |
| F. N. Dewey, Elkhart..... | Elkhart | | F. H. Robinson, Delphi..... | Carroll | |
| H. J. DeFrees, Nappanee..... | Elkhart | | H. Y. Mullin, Rockfield..... | Carroll | |
| W. A. Price, Nappanee..... | Elkhart | | T. A. Kearns, Flora..... | Carroll | |
| M. D. Price, Nappanee..... | Elkhart | | C. E. Carney, Delphi..... | Carroll | |
| A. S. Sensenieh, Wakarusa..... | Elkhart | | C. C. Crampton, Delphi..... | Carroll | |
| J. Mathews, New Paris..... | Elkhart | | W. R. Quick, Delphi..... | Carroll | |
| E. D. Stuekman, New Paris..... | Elkhart | | O. G. Brubaker, Burlington..... | Carroll | |
| C. W. Haywood, Elkhart..... | Elkhart | | Wm. S. Dow, 48th and Central, Indianapolis..... | Marion | |
| M. A. Farver, Middlebury..... | Elkhart | | W. I. Hoag, 2625 W. Washington, Indianapolis..... | Marion | |
| B. F. Teters, Middlebury..... | Elkhart | | M. T. McCarty, Frankfort..... | Clinton | |
| M. T. Brumbaugh, Foraker..... | Elkhart | | F. C. Loeke, Rossville..... | Clinton | |
| M. M. Eckelman, Elkhart..... | Elkhart | | M. F. Boulden, Frankfort..... | Clinton | |
| D. C. Roney, Ridgeville..... | Randolph | | W. J. Fernald, Frankfort..... | Clinton | |
| F. A. Chenoweth, Winchester..... | Randolph | | J. W. Hadley, Frankfort..... | Clinton | |
| J. H. Moroney, Winchester..... | Randolph | | S. B. Sims, Frankfort..... | Clinton | |
| C. E. Milligan, Winchester..... | Randolph | | N. W. Clark, Rossville..... | Clinton | |
| F. McK. Ruby, Union City..... | Randolph | | H. N. Oliphant, Forest..... | Clinton | |
| B. S. Hunt, Winchester..... | Randolph | | Chas. Chittick, Frankfort..... | Clinton | |
| C. E. Martin, Farmland..... | Randolph | | O. W. Edmonds, Frankfort..... | Clinton | |
| O. E. Current, Farmland..... | Randolph | | Oliver Card, Frankfort..... | Clinton | |
| Mary O. Cromer, Union City..... | Randolph | | A. Hamilton, Michigantown..... | Clinton | |
| Grant C. Markle, Winchester..... | Randolph | | J. E. Robinson, Delphi..... | Clinton | |
| F. Arthur Zeller, Union City..... | Randolph | | A. G. Chittick, Frankfort..... | Clinton | |
| Thos. W. Morgan, Spartanburg..... | Randolph | | R. C. Townsend, Osgood..... | Ripley | |
| Chas. E. Spitler, Saratoga..... | Randolph | | H. G. Nelson, Osgood..... | Ripley | |
| C. A. Spitler, Saratoga..... | Randolph | | E. D. Freeman, Osgood..... | Ripley | |
| Edward G. Reynard, Union City..... | Randolph | | J. R. Pate, Milan..... | Ripley | |
| John Nixon, Farmland..... | Randolph | | I. A. Whitlatch, Milan..... | Ripley | |
| C. L. Botkin, Farmland..... | Randolph | | T. E. Hunter, Versailles..... | Ripley | |
| L. G. Cromer, Union City..... | Randolph | | C. E. Holton, Holton..... | Ripley | |
| Howard Drumm, Parker..... | Randolph | | L. T. Cox, Napoleon..... | Ripley | |
| D. R. Ulmer, Terre Haute..... | Vigo | | E. M. Hurst, Cloverdale..... | Putnam | |
| H. L. Bernheimer, Terre Haute..... | Vigo | | Chas. F. Hope, Coatesville..... | Putnam | |
| F. E. Wiedemann, Terre Haute..... | Vigo | | Chas. Sudranski, Greencastle..... | Putnam | |
| Geo. T. Johnson, Terre Haute..... | Vigo | | J. F. Gillespie, Greencastle..... | Putnam | |
| C. H. Edwards, Terre Haute..... | Vigo | | J. M. King, Greencastle..... | Putnam | |
| O. O. Alexander, Terre Haute..... | Vigo | | W. R. Hutcheson, Greencastle..... | Putnam | |
| W. E. Bell, Terre Haute..... | Vigo | | W. M. McGaughey, Greencastle..... | Putnam | |
| Walker Schell, Terre Haute..... | Vigo | | W. W. Tucker, Greencastle..... | Putnam | |
| Jos. Weinstein, Terre Haute..... | Vigo | | J. V. Bastin, Fillmore..... | Putnam | |
| M. A. Boor, Terre Haute..... | Vigo | | C. T. Zaring, Greencastle..... | Putnam | |
| J. R. Yung, Terre Haute..... | Vigo | | Y. N. New, Barnard..... | Putnam | |
| Chas. De Puy, Riley..... | Vigo | | U. A. Wright, Coatesville..... | Putnam | |
| W. O. Jenkins, Terre Haute..... | Vigo | | C. C. Collins, Roachdale..... | Putnam | |
| J. S. Schaffer, Terre Haute..... | Vigo | | A. H. Horn, Putnamville..... | Putnam | |
| E. B. McAllister, Terre Haute..... | Vigo | | J. L. Preston, Cloverdale..... | Putnam | |
| T. W. Moorhead, Terre Haute..... | Vigo | | J. E. Culphier, New Maysville..... | Putnam | |
| Millard Knowlton, Trenton, N. J. | | | C. N. Stroube, Roachdale..... | Putnam | |
| W. F. Payne, Prairie Creek..... | Vigo | | E. T. Zaring, Terre Haute..... | Putnam | |
| I. M. Casebeer, Newport..... | Vigo | | E. Hawkins, Greencastle..... | Putnam | |
| E. D. Thixtun, Terre Haute..... | Vigo | | C. E. Linton, Medaryville..... | Pulaski | |
| D. H. Forsyth, Terre Haute..... | Vigo | | E. T. Dippell, Huntington..... | Huntington | |
| M. H. Kuteh, Terre Haute..... | Vigo | | I. E. Perry, Bippus..... | Huntington | |
| E. S. Niblack, Terre Haute..... | Vigo | | M. C. Clokey, Huntington..... | Huntington | |
| R. L. Woodard, Terre Haute..... | Vigo | | C. S. Black, Warren..... | Huntington | |
| J. S. Hunt, West Terre Haute..... | Vigo | | E. W. Poinier, Andrews..... | Huntington | |
| L. P. Luckett, Terre Haute..... | Vigo | | J. S. Sprowl, Warren..... | Huntington | |
| W. F. Willien, Terre Haute..... | Vigo | | Chas. H. Good, Huntington..... | Huntington | |
| C. N. Combs, Terre Haute..... | Vigo | | F. B. Morgan, Huntington..... | Huntington | |
| F. H. Jett, Terre Haute..... | Vigo | | G. M. O'Leary, Huntington..... | Huntington | |
| W. B. Hunt, Youngstown..... | Vigo | | B. H. B. Grayston, Huntington..... | Huntington | |
| Marie Haslep, 2005 College Ave., Indianapolis..... | Marion | | F. W. Grayston, Huntington..... | Huntington | |
| E. J. Du Bois, City Hall, Indianapolis..... | Marion | | R. F. Frost, Huntington..... | Huntington | |
| Homer H. Wheeler, K. of P. Bldg., Indianapolis..... | Marion | | G. H. Brodbeck, Huntington..... | Huntington | |
| J. C. Ross, Gas City..... | Grant | | C. W. Fry, Huntington..... | Huntington | |
| W. T. Blythe, Gleen..... | Pike | | R. S. Galbreath, Huntington..... | Huntington | |
| C. E. Angell, Delphi..... | Carroll | | J. M. Hicks, Huntington..... | Huntington | |
| W. A. Trobaugh, Cutler..... | Carroll | | Wallace S. Grayston, Huntington..... | Huntington | |
| C. C. Hickman, Yeoman..... | Carroll | | Helen Mellvaine, Huntington..... | Huntington | |
| A. C. Clauser, Delphi..... | Carroll | | O. O. Nelson, Huntington..... | Huntington | |
| J. J. Shultz, Delphi..... | Carroll | | W. C. Chaffee, Huntington..... | Huntington | |

| NAME AND ADDRESS | COUNTY SOCIETY | NAME AND ADDRESS | COUNTY SOCIETY |
|-------------------------------------|----------------|---|----------------|
| C. E. Grayston, Huntington..... | Huntington | T. J. Shackelford, Warsaw..... | Kosciusko |
| M. H. Krebs, Huntington..... | Huntington | C. E. Thomas, Leesburg..... | Kosciusko |
| N. W. Scott, Huntington..... | Huntington | J. L. Warvel, Sidney..... | Kosciusko |
| W. F. Smith, Huntington..... | Huntington | M. G. Yoeum, Mentone..... | Kosciusko |
| R. Q. Taviner, Huntington..... | Huntington | F. J. Young, Milford..... | Kosciusko |
| Chas. L. Wright, Huntington..... | Huntington | J. C. Burkle, New Ross..... | Montgomery |
| Ervin Wright, Huntington..... | Huntington | Harry B. Williams, Mace..... | Montgomery |
| A. H. Shaffer, Huntington..... | Huntington | W. G. Swank, Crawfordsville..... | Montgomery |
| H. E. Laymon, Warren..... | Huntington | F. A. Dennis, Crawfordsville..... | Montgomery |
| W. D. Bonifield, Warren..... | Huntington | G. T. Williams, Crawfordsville..... | Montgomery |
| A. H. Northrop, Markle..... | Huntington | W. F. Batman, Ladoga..... | Montgomery |
| S. Koontz, Roanoke..... | Huntington | H. W. Sigmond, Crawfordsville..... | Montgomery |
| G. G. Wimmer, Mt. Etna..... | Huntington | J. F. Davidson, Crawfordsville..... | Montgomery |
| Boaz Yocum, Coal City..... | Owen | P. J. Barcus, Crawfordsville..... | Montgomery |
| N. D. Cox, Spencer..... | Owen | O. H. Jones, Crawfordsville..... | Montgomery |
| A. C. Kennedy, Patricksburg..... | Owen | T. Z. Ball, Waveland..... | Montgomery |
| O. F. Gray, Spencer..... | Owen | F. O. Schenck, Crawfordsville..... | Montgomery |
| Geo. F. Willoughby, Gosport..... | Owen | W. H. Ristine, Crawfordsville..... | Montgomery |
| Wm. McQueen, Catawa..... | Owen | H. E. Greene, Crawfordsville..... | Montgomery |
| Thos. Gantz, Spencer..... | Owen | S. L. Ensminger, Crawfordsville..... | Montgomery |
| Allen Pierson, Spencer..... | Owen | N. F. Peacock, Darlington..... | Montgomery |
| H. G. Osgood, Gosport..... | Owen | R. W. Foster, Russellville..... | Montgomery |
| H. A. Fox, Gosport..... | Owen | J. B. Griffith, Alamo..... | Montgomery |
| Jno. N. Sloan, Spencer..... | Owen | Martha H. Griffith, Crawfordsville..... | Montgomery |
| Chas. F. Pectol, Spencer..... | Owen | Thos. J. Griffith, Crawfordsville..... | Montgomery |
| G. L. Mitchell, Quincy..... | Owen | G. P. Ramsey, Crawfordsville..... | Montgomery |
| W. R. Holtzman, Stinesville..... | Owen | A. A. Swope, Crawfordsville..... | Montgomery |
| G. F. Beasley, Lafayette..... | Tippecanoe | B. F. Hutchings, Crawfordsville..... | Montgomery |
| J. C. Webster, Lafayette..... | Tippecanoe | J. R. Etter, Crawfordsville..... | Montgomery |
| A. W. Schreiber, Lafayette..... | Tippecanoe | N. A. Cary, Crawfordsville..... | Montgomery |
| Earl Van Read, Lafayette..... | Tippecanoe | J. P. Wolf, New Market..... | Montgomery |
| M. Baker, Lafayette..... | Tippecanoe | S. R. Peacock, Ladoga..... | Montgomery |
| M. M. Lairy, Lafayette..... | Tippecanoe | J. H. Fears, South Bend..... | St. Joseph |
| W. A. Lofland, West Lafayette..... | Tippecanoe | H. F. Mitchell, South Bend..... | St. Joseph |
| W. M. Reser, Lafayette..... | Tippecanoe | R. C. Shanklin, South Bend..... | St. Joseph |
| E. Schaible, Lafayette..... | Tippecanoe | W. G. Wegner, South Bend..... | St. Joseph |
| G. F. Keiper, Lafayette..... | Tippecanoe | R. L. Sensenich, South Bend..... | St. Joseph |
| O. Terry, Lafayette..... | Tippecanoe | C. A. Warwick, South Bend..... | St. Joseph |
| F. A. Loop, Lafayette..... | Tippecanoe | W. H. Baker, South Bend..... | St. Joseph |
| R. N. Campbell, Lafayette..... | Tippecanoe | Chas. S. Bosenbury, South Bend..... | St. Joseph |
| W. R. Moffitt, Lafayette..... | Tippecanoe | S. A. Clark, South Bend..... | St. Joseph |
| C. V. Davisson, Lafayette..... | Tippecanoe | T. A. Olney, South Bend..... | St. Joseph |
| W. F. McBride, Dayton..... | Tippecanoe | W. B. Christophel, Mishawaka..... | St. Joseph |
| Chas. B. Kern, Lafayette..... | Tippecanoe | C. A. Dresch, Mishawaka..... | St. Joseph |
| A. C. Arnett, Lafayette..... | Tippecanoe | W. A. Hager, South Bend..... | St. Joseph |
| F. S. Crockett, Lafayette..... | Tippecanoe | H. M. Miller, South Bend..... | St. Joseph |
| E. C. Davidson, Lafayette..... | Tippecanoe | E. R. Dean, South Bend..... | St. Joseph |
| C. C. Driscoll, Lafayette..... | Tippecanoe | E. P. Moore, South Bend..... | St. Joseph |
| F. M. Biddle, Battle Ground..... | Tippecanoe | L. P. Van Rie, Mishawaka..... | St. Joseph |
| W. F. Butler, Stockwell..... | Tippecanoe | S. W. Baer, South Bend..... | St. Joseph |
| J. D. Hillis, Lafayette..... | Tippecanoe | S. L. Kilmer, South Bend..... | St. Joseph |
| Chas. Hupe, Lafayette..... | Tippecanoe | Chas. R. Vickery, South Bend..... | St. Joseph |
| Guy P. Levering, Lafayette..... | Tippecanoe | H. A. Fink, South Bend..... | St. Joseph |
| Adah McMahan, Lafayette..... | Tippecanoe | L. V. Stranz, South Bend..... | St. Joseph |
| W. H. H. Moore, West Lafayette..... | Tippecanoe | C. M. Butterworth, South Bend..... | St. Joseph |
| J. S. Morrison, Lafayette..... | Tippecanoe | W. L. Owen, South Bend..... | St. Joseph |
| Geo. Revis, Lafayette..... | Tippecanoe | J. A. Varier, South Bend..... | St. Joseph |
| Edward B. Rushli, Lafayette..... | Tippecanoe | Chas. E. Varier, South Bend..... | St. Joseph |
| J. W. Shafer, Lafayette..... | Tippecanoe | J. W. Hill, South Bend..... | St. Joseph |
| H. N. Swezey, Lafayette..... | Tippecanoe | Henry E. Vitou, South Bend..... | St. Joseph |
| R. S. Tea, Lafayette..... | Tippecanoe | W. A. Wiekham, South Bend..... | St. Joseph |
| R. H. Wagoner, Colburn..... | Tippecanoe | H. T. Montgomery, South Bend..... | St. Joseph |
| S. S. Washburn, Lafayette..... | Tippecanoe | C. B. Crumpacker, South Bend..... | St. Joseph |
| R. B. Wetherill, Lafayette..... | Tippecanoe | T. J. Swantz, South Bend..... | St. Joseph |
| M. C. Wilson, Lafayette..... | Tippecanoe | W. H. Hillman, South Bend..... | St. Joseph |
| J. M. Reynolds, Memphis..... | Clark | W. M. Cook, South Bend..... | St. Joseph |
| T. J. Marshall, Charlestown..... | Clark | J. M. Gordon, South Bend..... | St. Joseph |
| G. W. Anglin, Warsaw..... | Kosciusko | E. R. Borley, South Bend..... | St. Joseph |
| C. C. Du Bois, Warsaw..... | Kosciusko | C. E. Hansel, South Bend..... | St. Joseph |
| J. W. Dunfee, Etna Green..... | Kosciusko | C. C. Terry, South Bend..... | St. Joseph |
| P. G. Fermier, Leesburg..... | Kosciusko | Earl Wagner, South Bend..... | St. Joseph |
| J. W. Hefley, Mentone..... | Kosciusko | E. J. Lent, South Bend..... | St. Joseph |
| C. N. Howard, Warsaw..... | Kosciusko | M. S. Denaut, Walkerton..... | St. Joseph |
| W. C. Landis, Claypool..... | Kosciusko | James Miles, Merom..... | Sullivan |
| C. E. Leedy, Piercetown..... | Kosciusko | Chas. E. Whippis, Carlisle..... | Sullivan |
| C. R. Long, Piercetown..... | Kosciusko | Alfred W. Hadley, Pleasantville..... | Sullivan |
| J. E. Potter, Milford..... | Kosciusko | B. Wallace, Franklin..... | Johnson |

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| II. J. Hall, Franklin..... | Johnson | R. E. Holder, Columbus..... | Bartholomew |
| L. L. Whitesides, Franklin..... | Johnson | G. T. MacCoy, Columbus..... | Bartholomew |
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| J. F. Cully, Bainbridge..... | Putnam | P. C. Graham, Columbus..... | Bartholomew |
| G. W. Buckner, Evansville..... | Vanderburg | D. J. Marshall, Columbus..... | Bartholomew |
| Wm. Laval, Evansville..... | Vanderburg | F. D. Norton, Columbus..... | Bartholomew |
| A. J. Knapp, Evansville..... | Vanderburg | E. U. Wood, Columbus..... | Bartholomew |
| P. H. Linthicum, Evansville..... | Vanderburg | Wm. H. Butler, Columbus..... | Bartholomew |
| Earl Conover, Evansville..... | Vanderburg | Lotta R. A. Suverkrup, Columbus..... | Bartholomew |
| C. B. Harpole, Evansville..... | Vanderburg | B. A. Clouse, Columbus..... | Bartholomew |
| Chas. D. Ryan, Cross Plains..... | Ripley | A. M. Kirkpatrick, Columbus..... | Bartholomew |
| J. L. Redding, Barbers Mills..... | Wells | J. W. Benham, Columbus..... | Bartholomew |
| A. W. Tucker, Logansport..... | Cass | Flavius J. Beek, Hartsville..... | Bartholomew |
| L. C. Miller, Twelve Mile..... | Cass | J. I. Maris, Waymansville..... | Bartholomew |
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| C. C. Campbell, Walton..... | Cass | A. P. Roope, Columbus..... | Bartholomew |
| H. B. Hill, Logansport..... | Cass | S. M. Voris, Columbus..... | Bartholomew |
| J. H. Reed, Logansport..... | Cass | Geo. E. Reynolds, Columbus..... | Bartholomew |
| J. C. Davis, Logansport..... | Cass | Jas. K. Hawes, Columbus..... | Bartholomew |
| J. C. Bradfield, Logansport..... | Cass | R. D. Willian, Trafalgar..... | Johnson |
| C. A. Ballard, Logansport..... | Cass | C. E. Willian, Trafalgar..... | Johnson |
| Robert Hessler, Logansport..... | Cass | A. A. Ross, East Chicago..... | Lake |
| J. L. Gilbert, Logansport..... | Cass | J. A. Chevigny, Dyer..... | Lake |
| C. L. Thomas, Logansport..... | Cass | W. R. Arthur, Gary..... | Lake |
| J. P. Hetherington, Logansport..... | Cass | O. A. Bigham, St. Anthony..... | Du Bois |
| J. A. Little, Logansport..... | Cass | Fred C. Rust, Holland..... | Du Bois |
| R. E. Troutman, Logansport..... | Cass | C. C. Rayl, Monroe..... | Adams |
| F. A. Busjahn, Logansport..... | Cass | J. S. Boyers, Decatur..... | Adams |
| F. J. Herman, Logansport..... | Cass | M. F. Parris, Monroe..... | Adams |
| Geo. D. Miller, Logansport..... | Cass | C. R. Price, Geneva..... | Adams |
| J. Z. Powell, Logansport..... | Cass | H. F. Costello, Decatur..... | Adams |
| N. W. Cady, Logansport..... | Cass | S. D. Beavers, Decatur..... | Adams |
| H. H. Miller, Galveston..... | Cass | W. E. Smith, Decatur..... | Adams |
| Z. U. Loop, Galveston..... | Cass | H. M. Bounnell, Waynetown..... | Montgomery |
| E. Cornell, Galveston..... | Cass | A. N. Hamilton, Waynetown..... | Montgomery |
| J. H. Barnfield, Logansport..... | Cass | D. S. Linvill, Columbia City..... | Whitley |
| H. C. Johnson, Logansport..... | Cass | F. G. Grisier, Columbia City..... | Whitley |
| J. J. Stanton, Logansport..... | Cass | Alice B. Williams, Columbia City..... | Whitley |
| J. B. Seaman, Mishawaka..... | St. Joseph | L. W. Tennant, Lawill..... | Whitley |
| J. B. Berteling, South Bend..... | St. Joseph | V. E. Nolt, Columbia City..... | Whitley |
| R. B. Dugdale, South Bend..... | St. Joseph | J. W. C. Scott, Etna..... | Whitley |
| C. A. Daugherty, South Bend..... | St. Joseph | N. I. Kitheart, Columbia City..... | Whitley |
| A. P. F. Gammaek, South Bend..... | St. Joseph | O. V. Schuman, Columbia City..... | Whitley |
| U. G. Galloway, South Bend..... | St. Joseph | F. M. Magers, Churubusco..... | Whitley |
| J. W. Kemp, Roanoke..... | Huntington | C. L. Souders, Columbia City..... | Whitley |
| Thos. J. Thompson, South Pasadena, Cal. | | B. P. Linvill, Columbia City..... | Whitley |
| H. E. Turner, 406 N. Alabama St., Indianapolis, Marion | | E. L. Eberhard, South Whitley..... | Whitley |
| T. A. Helming, 1136 S. East St., Indianapolis, Marion | | M. W. Webster, South Whitley..... | Whitley |
| C. H. McCaskey, Amer. Central Life Bldg., Indianapolis, | Marion | S. R. White, Laud..... | Whitley |
| V. A. Lapenta, Newton-Claypool Bldg., Indianapolis, | Marion | Jessie H. Briggs, Churubusco..... | Whitley |
| J. E. King, Richmond..... | Wayne | O. E. Metzger, South Whitley..... | Whitley |
| T. Henry Davis, Richmond..... | Wayne | B. Frank Stieckler, Laud..... | Whitley |
| Chas. Marvel, Richmond..... | Wayne | J. F. Criswell, Churubusco..... | Whitley |
| I. F. Sweeney, Milton..... | Wayne | H. W. Shirley, Shoals..... | Martin |
| R. D. Morrow, Richmond..... | Wayne | Chas. E. Stone, Shoals..... | Martin |
| R. V. Haunell, Lafayette..... | Tippecanoe | E. E. Long, Shoals..... | Martin |
| A. W. Bitting, West Lafayette..... | Tippecanoe | Geo. Freeman, Shoals..... | Martin |
| Ora L. McCay, Romney..... | Tippecanoe | J. C. Trueblood, Loogootee..... | Martin |
| T. E. Mitchell, Romney..... | Tippecanoe | J. W. Strange, Loogootee..... | Martin |
| C. L. Rowland, West Point..... | Tippecanoe | Geo. W. Boner, Loogootee..... | Martin |
| Frank B. Thompson, Lafayette..... | Tippecanoe | Geo. M. Robinson, Loogootee..... | Martin |
| Riley Geo. Tubbs, West Point..... | Tippecanoe | Wm. Gilkison, Loogootee..... | Martin |
| J. M. Stoddard, Anderson..... | Madison | J. N. Sims, Shoals..... | Martin |
| J. B. Fattie, Anderson..... | Madison | John S. Gilkison, Indian Springs..... | Martin |
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| C. E. Harris, Bloomington..... | Monroe | T. A. Hays, Burns City..... | Martin |
| J. W. Wiltshire, Bloomington..... | Monroe | Marc L. Bond, Aurora..... | Dearborn |
| Fred Batman, Bloomington..... | Monroe | J. C. Elliott, Guilford..... | Dearborn |
| C. C. Stroup, Bloomington..... | Monroe | L. C. Cowen, Rising Sun..... | Dearborn |
| R. A. Akin, Bloomington..... | Monroe | John Elfers, Rising Sun..... | Dearborn |
| G. F. Holland, Bloomington..... | Monroe | Wm. F. Duncan, Aurora R. R. | Dearborn |
| R. D. Smith, Bloomington..... | Monroe | A. T. Fagaly, Lawreneeberg..... | Dearborn |
| B. D. Myers, Bloomington..... | Monroe | W. C. Henry, Aurora..... | Dearborn |
| | | Robt. T. Neffner, Weisburg..... | Dearborn |
| | | O. S. Jaquith, Lawreneeberg..... | Dearborn |

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|--|------------|---------|--|------------|---------|
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| E. J. Libbert, Aurora..... | Dearborn | | Royse Davis, Decker..... | Knox | |
| F. M. Mueller, Lawrenceburg..... | Dearborn | | Chas. S. Bryan, Vincennes..... | Knox | |
| C. Newforth, Sunman..... | Dearborn | | E. N. Johnson, Sandborn..... | Knox | |
| Geo. F. Smith, Lawrenceburg..... | Dearborn | | A. B. Knapp, Vincennes..... | Knox | |
| Jas. F. Treon, Aurora..... | Dearborn | | C. L. Boyd, Vincennes..... | Knox | |
| H. H. Sutton, Aurora..... | Dearborn | | J. G. Jones, Vincennes..... | Knox | |
| Geo. H. Stevenson, Rising Sun..... | Dearborn | | J. N. McCoy, Vincennes..... | Knox | |
| C. W. Shaw, Rising Sun..... | Dearborn | | J. W. Smadel, Vincennes..... | Knox | |
| Wilbur Robinson, Sunman..... | Dearborn | | L. J. Downey, Vincennes..... | Knox | |
| J. L. McElroy, Aurora..... | Dearborn | | E. H. Frigge, Vincennes..... | Knox | |
| Edward R. Wallace, Aurora..... | Dearborn | | B. B. Griffith, Vincennes..... | Knox | |
| Geo. H. Hansell, Aurora R. R. | Dearborn | | T. M. Staley, Bicknell..... | Knox | |
| J. L. McBride, Zanesville..... | Wells | | L. B. Staley, Bicknell..... | Knox | |
| T. J. McKean, Linn Grove..... | Wells | | C. E. Stewart, Vincennes..... | Knox | |
| S. A. Goodin, Bluffton..... | Wells | | S. C. Beard, Vincennes..... | Knox | |
| L. L. Ball, Muncie..... | Delaware | | H. D. McCormick, Vincennes..... | Knox | |
| J. C. Quick, Muncie..... | Delaware | | E. P. Bowers, Vincennes..... | Knox | |
| W. A. Spurgeon, Muncie..... | Delaware | | E. H. Tade, Wheatland..... | Knox | |
| O. E. Spurgeon, Muncie..... | Delaware | | W. H. Davenport, Vincennes..... | Knox | |
| E. M. Hoover, Elkhart..... | Elkhart | | Geo. Knapp, Vincennes..... | Knox | |
| R. L. Lockwood, Elkhart..... | Elkhart | | V. A. Funk, Vincennes..... | Knox | |
| C. D. Goodrich, Elkhart..... | Elkhart | | D. H. Richards, Vincennes..... | Knox | |
| G. B. Hoopingartner, Elkhart..... | Elkhart | | R. S. Woods, Wheatland..... | Knox | |
| S. T. Miller, Elkhart..... | Elkhart | | J. A. Swartzel, 2106 E. 10th St., Indianapolis..... | Marion | |
| R. M. Murphy, Elkhart..... | Elkhart | | E. W. Rine, Winchester..... | Randolph | |
| H. O. Staufft, Elkhart..... | Elkhart | | Moris Drake, Shelbyville..... | Shelby | |
| E. R. Zimmermann, Elkhart..... | Elkhart | | Samuel Kennedy, Shelbyville..... | Shelby | |
| A. J. Irwin, Goshen..... | Elkhart | | Thos. G. Green, Shelbyville..... | Shelby | |
| S. C. Wagner, Wakarusa..... | Elkhart | | Frank E. Ray, Shelbyville..... | Shelby | |
| J. S. Inks, Nappanee..... | Elkhart | | W. C. McFadden, Shelbyville..... | Shelby | |
| C. A. Inks, Nappanee..... | Elkhart | | J. W. Parrish, Shelbyville..... | Shelby | |
| J. E. Kitchell, Camden, R. F. D. | Carroll | | H. E. Phares, Shelbyville..... | Shelby | |
| G. M. Buck, Burrows..... | Carroll | | J. E. Kelling, Waldron..... | Shelby | |
| E. L. Peter, Flora..... | Carroll | | M. M. Wells, Fairland..... | Shelby | |
| T. D. Peter, Flora..... | Carroll | | C. H. Perry, Lewis Creek..... | Shelby | |
| G. H. Kister, Elberfeld..... | Warrick | | J. W. Snider, Fairland..... | Shelby | |
| D. M. Hines, Auburn..... | De Kalb | | G. I. Inlow, Shelbyville, R. R. 6..... | Shelby | |
| Frank Bevier, Waterloo..... | De Kalb | | C. W. Hartloff, Evansville..... | Vanderburg | |
| Wm. F. Shumaker, Butler..... | De Kalb | | E. C. Macer, Evansville..... | Vanderburg | |
| F. M. Hines, Auburn..... | De Kalb | | H. M. Baker, Evansville..... | Vanderburg | |
| J. E. Cooper, Auburn..... | De Kalb | | Sarah Stockton, Central Hosp. Insane, Indianapolis..... | Marion | |
| C. A. Rennoe, South Bend..... | St. Joseph | | W. B. Kitchen, Pennway Bldg., Indianapolis..... | Marion | |
| James G. Bostwick, Mishawaka..... | St. Joseph | | Bernhard Erdman, Newton-Claypool Bldg., Indianapolis..... | Marion | |
| H. S. Hewitt, Seward, Neb..... | Delaware | | A. B. Graham, Hume-Mansur Bldg., Indianapolis..... | Marion | |
| H. S. Bowles, Muncie..... | Delaware | | J. E. Hughes, 950 S. Meridian St., Indianapolis..... | Marion | |
| A. C. Pebworth, 1228 Reisner St., Indianapolis..... | Marion | | Theo. Henson, Martinsville..... | Morgan | |
| Chas. L. Cabalzer, Willoughby Bldg., Indianapolis..... | Marion | | W. J. Sandy, Martinsville..... | Morgan | |
| Cameron Chamberlin, 3215 E. 10th St., Indianapolis..... | Marion | | O. A. Sweet, Martinsville..... | Morgan | |
| Ada E. Schweitzer, State Board of Health, Indianapolis..... | Marion | | E. V. Green, Martinsville..... | Morgan | |
| Max A. Bahr, Central Hosp. for Insane, Indianapolis..... | Marion | | Frank R. Maxwell, Martinsville..... | Morgan | |
| Luther H. Ratliff, Lawrence, Ind..... | Marion | | E. M. Sweet, Martinsville..... | Morgan | |
| Fred R. Charlton, Hume-Mansur Bldg., Indianapolis..... | Marion | | Geo. B. Breedlove, Martinsville..... | Morgan | |
| D. L. Phipps, Whiteland..... | Johnson | | H. C. Robinson, Martinsville..... | Morgan | |
| A. L. Loop, Economy..... | Wayne | | Robt. Egbert, Martinsville..... | Morgan | |
| Mary Wickens, Richmond..... | Wayne | | Jas. H. Walker, Henryville..... | Clark | |
| Loren Hooyer, Decker..... | Knox | | F. M. Wells, Jeffersonville..... | Clark | |
| W. E. Kessinger, Bicknell..... | Knox | | C. E. Miller, Muncie..... | Delaware | |
| P. H. Caney, Vincennes..... | Knox | | Geo. H. Dando, Montpelier..... | Blackford | |
| C. V. Benham, Vincennes..... | Knox | | C. W. Mackey, Portland..... | Jay | |
| N. E. Beckes, Vincennes..... | Knox | | M. T. Jay, Portland..... | Jay | |
| Silas Hall, Vincennes..... | Knox | | Brown S. McClintic, Peru..... | Miami | |
| J. P. Ramsey, Vincennes..... | Knox | | F. H. Andrews, Peru..... | Miami | |
| H. W. Held, Vincennes..... | Knox | | M. H. Taylor, Maey..... | Miami | |
| E. F. Small, Decker..... | Knox | | J. C. Fretz, Deedsville..... | Miami | |
| J. D. McDowell, Vincennes..... | Knox | | P. B. Carter, Macy..... | Miami | |
| M. M. McDowell, Vincennes..... | Knox | | J. O. Ward, Peru..... | Miami | |
| S. A. Prather, Vincennes..... | Knox | | O. R. Lynch, Peru..... | Miami | |
| Jos. F. Somes, Vincennes..... | Knox | | M. A. McDowell, Peru..... | Miami | |
| T. H. Maxedon, Vincennes..... | Knox | | E. S. Waymire, Denver..... | Miami | |
| A. W. Myers, Monroe City..... | Knox | | A. H. Kalbfleisch, Peru..... | Miami | |
| J. A. Seudder, Edwardsport..... | Knox | | E. H. Griswold, Peru..... | Miami | |
| | | | D. C. Ridenour, Peru..... | Miami | |

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| M. R. Combs, Terre Haute..... | Vigo | Theodore Potter, Newton-Claypool Bldg., Indianapolis | Marion |
| F. L. Larkins, Terre Haute..... | Vigo | A. W. Brayton, Newton-Claypool Bldg., Indianapolis | Marion |
| W. G. Crawford, Terre Haute..... | Vigo | J. D. Mosehelle, Newton-Claypool Bldg., Indianapolis | Marion |
| E. W. Layman, Terre Haute..... | Vigo | W. P. Garshwiler, Newton-Claypool Bldg., Indianapolis | Marion |
| E. L. Mattox, West Terre Haute..... | Vigo | J. F. Robertson, 2313 E. Michigan St., Indianapolis | Marion |
| C. C. Givens, Lewis..... | Vigo | F. C. Heath, Newton-Claypool Bldg., Indianapolis | Marion |
| O. R. Spigler, Terre Haute..... | Vigo | Henry Lohrman, Newton-Claypool Bldg., Indianapolis | Marion |
| Charles Wyeth, Terre Haute..... | Vigo | John Morris, I. O. O. F. Bldg., Indianapolis... | Marion |
| D. C. Shaff, Clinton..... | Vigo | E. F. Kiser, 120 E. 22d St., Indianapolis.... | Marion |
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| J. H. Cook, Terre Haute..... | Vigo | Clarence L. Marlatt, 760 Massachusetts Ave., Indianapolis | Marion |
| T. C. Louks, Seeleyville..... | Vigo | H. J. Weil, 2103 E. Michigan St., Indianapolis, Marion | |
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| G. W. Crapo, Terre Haute..... | Vigo | Harry K. Bonn, 331 N. Delaware St., Indianapolis | Marion |
| S. J. Young, Terre Haute..... | Vigo | Alice L. Hobbs, 221 W. 11th St., Indianapolis, Marion | |
| H. M. Mullikin, Terre Haute..... | Vigo | Francis O. Dorsey, Hume-Mansur Bldg., Indianapolis | Marion |
| E. C. McBride, Terre Haute..... | Vigo | S. J. Copeland, Lexington and State Sts., Indianapolis | Marion |
| T. C. Stunkard, Terre Haute..... | Vigo | John A. Garrettson, 768 Fletcher Ave., Indianapolis | Marion |
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| D. W. Bopp, Terre Haute..... | Vigo | E. C. Totten, Madison..... | Jefferson |
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| T. Roy Cook, Bloomfield..... | Greene | D. W. Dryer, La Grange..... | La Grange |
| W. H. Short, La Grange..... | La Grange | Frank Wade, Howe..... | La Grange |
| C. C. Rozelle, La Grange..... | La Grange | Fred Wade, Howe..... | La Grange |
| A. J. Hostettler, La Grange..... | La Grange | J. H. Foster, Wolcottville..... | La Grange |
| J. E. Rarick, Wolcottville..... | La Grange | W. H. Taylor, Ambia..... | Benton |
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| J. L. Masters, 320 N. Meridian St., Indianapolis | Marion | H. Laird, Oxford..... | Benton |
| O. C. Neier, 540 E. Washington St., Indianapolis | Marion | E. E. Parker, Oxford..... | Benton |
| W. N. Sharp, Hume-Mansur Bldg., Indianapolis | Marion | W. A. Smith, Otterbein..... | Benton |
| Edmund D. Clark, Hume-Mansur Bldg., Indianapolis | Marion | O. M. Flack, Boswell..... | Benton |
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| Martha Smith, 404 N. New Jersey, Indianapolis | Marion | O. U. Chenoweth, Otterbein..... | Benton |
| W. H. Long, 1 The Benton, Indianapolis..... | Marion | D. E. Mavity, Fowler..... | Benton |
| R. S. Chappell, Traction Terminal Bldg., Indianapolis | Marion | Arthur Le Sage, Fowler..... | Benton |
| L. M. Rowe, 538 N. Pennsylvania, Indianapolis | Marion | Nellie Green, Fowler..... | Benton |
| Severance Burrage, Eli Lilly Co., Indianapolis, Marion | | H. G. Bloom, Oxford..... | Benton |
| Urbana Spink, 1140 E. Market St., Indianapolis | Marion | E. H. Brubaker, Flora..... | Carroll |
| M. A. Spink, 1140 E. Market St., Indianapolis, Marion | | Mary A. Whery, Fort Wayne..... | Allen |
| C. H. Walden, New Market..... | Montgomery | J. C. Wallace, Fort Wayne..... | Allen |
| A. J. Miller, Hammond..... | Lake | J. E. McHugh, Fort Wayne..... | Allen |
| T. J. McKean, Linn Grove..... | Adams | H. M. Arthur, Hazelton..... | Gibson |
| O. M. Graham, Geneva..... | Adams | F. M. Martin, 228 Plum St., Mt. Carmel, Ill. | |
| P. A. Kendall, Crothersville..... | Jackson | G. B. Beresford, Owensville..... | Gibson |
| J. H. Hosford, Fort Wayne..... | Allen | H. L. Bass, Ft. Branch..... | Gibson |
| M. F. Porter, Fort Wayne..... | Allen | R. A. Cushman, Princeton..... | Gibson |
| D. Benninghoff, Fort Wayne..... | Allen | M. L. Arthur, Patoka..... | Gibson |
| W. P. Whery, Fort Wayne..... | Allen | F. H. Maxam, Princeton..... | Gibson |
| R. T. Van Pelt, South Bend..... | St. Joseph | S. Irvin Arthur, Patoka..... | Gibson |
| F. P. Eastman, South Bend..... | St. Joseph | R. S. Anderson, Princeton..... | Gibson |
| O. Von Barandy, South Bend..... | St. Joseph | C. C. Kendle, Princeton..... | Gibson |
| H. J. Laws, Crown Point..... | Lake | W. H. Smith, Oakland City..... | Gibson |
| Hannah Graham, Marion Bldg., Indianapolis... | Marion | M. A. Montgomery, Owensville..... | Gibson |
| H. G. Hamer, Hume-Mansur Bldg., Indianapolis | Marion | James R. Montgomery, Owensville..... | Gibson |
| H. F. Beckman, 615 S. Noble St., Indianapolis, Marion | | V. H. Marehand, Haubstadt..... | Gibson |
| T. C. Hood, Newton-Claypool Bldg., Indianapolis | Marion | D. H. Swan, Francisco..... | Gibson |
| J. O. Stillson, K. of P. Bldg., Indianapolis.... | Marion | C. F. Diefendorf, Evansville..... | Gibson |
| T. B. Noble, Newton-Claypool Bldg., Indianapolis | Marion | A. L. Ziliak, Princeton..... | Gibson |
| J. D. McLeay, 31 W. Ohio St., Indianapolis.... | Marion | E. A. Spohn, Moran..... | Clinton |
| J. F. Barnhill, Pennway Bldg., Indianapolis... | Marion | A. W. Tobias, Elwood..... | Madison |

| NAME AND ADDRESS | COUNTY SOCIETY |
|---|----------------|
| A. H. Farley, Crown Point..... | Lake |
| C. A. DeLong, Gary..... | Lake |
| I. J. Propper, Gary..... | Lake |
| Ira Miltimore, Gary..... | Lake |
| G. L. Shoemaker, North Manchester..... | Wabash |
| A. E. Rogers, Somerset..... | Wabash |
| Ernst H. C. Hensler, R. R. 10, Howell Sta. | Posey |
| James Frank Leslie, Mt. Vernon..... | Posey |
| C. L. Rawlings, New Harmony..... | Posey |
| A. L. Woods, Poseyville..... | Posey |
| T. B. Rankin, Odon..... | Daviess |
| J. W. Clark, Washington..... | Daviess |
| H. Gers, Washington..... | Daviess |
| D. Brooks Smoot, Washington..... | Daviess |
| J. D. DeMotte, Odon..... | Daviess |
| A. I. Donaldson, Washington..... | Daviess |
| S. L. McPherson, Washington..... | Daviess |
| H. Herr, Washington..... | Daviess |
| F. Hollingsworth, Washington..... | Daviess |
| Vance May, Washington..... | Daviess |
| G. L. Parr, Washington..... | Daviess |
| A. A. Rang, Washington..... | Daviess |
| C. P. Scudder, Washington..... | Daviess |
| T. F. Spink, Washington..... | Daviess |
| G. W. Willeford, Washington..... | Daviess |
| C. H. Yenne, Washington..... | Daviess |
| J. W. Anderson, Washington..... | Daviess |
| Ralph Willeford, Washington..... | Daviess |
| O. E. Lett, Washington..... | Daviess |
| W. O. McKittrick, Plainville..... | Daviess |
| O. K. McKittrick, Plainville..... | Daviess |
| I. E. Bowman, Odon..... | Daviess |
| H. Wadsworth, Washington..... | Daviess |
| H. H. Dutton, Paragon..... | Morgan |
| Claude H. White, Monrovia..... | Morgan |
| R. S. Mason, Oakland City..... | Gibson |
| H. J. Pierce, Cloverland..... | Clay |
| Geo. C. Boyer, Brazil..... | Clay |
| Timothy M. Weaver, Cory..... | Clay |
| L. L. Williams, Brazil..... | Clay |
| Wm. Palm, Harmony..... | Clay |
| L. C. Rentchler, Center Point..... | Clay |
| J. F. Smith, Brazil..... | Clay |
| Felix G. Thornton, Knightsville..... | Clay |
| G. W. Finley, Brazil..... | Clay |
| H. R. Vandivier, Clay City..... | Clay |
| Harry Elliott, Brazil..... | Clay |
| W. H. Markley, Red Key..... | Jay |
| W. D. Schwartz, Portland..... | Jay |
| H. Wiley, Portland..... | Jay |
| J. E. Nixon, Portland..... | Jay |
| Mark M. Moran, Portland..... | Jay |
| O. M. Keyes, Dana..... | Parke |
| W. C. Myers, Dana..... | Parke |
| S. I. Green, Clinton, R. F. D. 4..... | Parke |
| C. S. White, Rosedale..... | Parke |
| A. A. Williamson, Marshall..... | Parke |
| Henry C. Rogers, Rockville..... | Parke |
| J. R. Bloomer, Rockville..... | Parke |
| W. H. Gillum, Rockville..... | Parke |
| T. J. Collings, Mecca..... | Parke |
| C. A. Caplinger, Wallace..... | Parke |
| A. B. Lockridge, Rockville..... | Parke |
| Laura Carter, Shelbyville..... | Shelby |
| D. E. Randolph, Waldron..... | Shelby |
| S. L. Strickler, Boggs town..... | Shelby |
| W. E. Thornton, Montpelier..... | Blackford |
| J. E. Hall, Alexandria..... | Madison |
| E. L. Wiggins, Elwood..... | Madison |
| T. J. Toner, Gary..... | Lake |
| J. T. Paxton, Rushville..... | Rush |
| C. L. Rea, Falmouth..... | Rush |
| Frank G. Hackleman, Rushville..... | Rush |
| W. S. Coleman, Rushville..... | Rush |
| II. V. Logan, Rushville..... | Rush |
| E. I. Wooden, Rushville..... | Rush |
| D. D. Van Osdol, Rushville..... | Rush |

| NAME AND ADDRESS | COUNTY SOCIETY |
|--|----------------|
| Frank H. Green, Rushville..... | Rush |
| J. C. Sexton, Rushville..... | Rush |
| A. G. Shauck, Arlington..... | Rush |
| W. C. Smith, Rushville..... | Rush |
| R. T. Blount, Rushville..... | Rush |
| H. H. Elliott, Rushville..... | Rush |
| Lowell M. Green, Rushville..... | Rush |
| J. B. McEvoy, Fort Wayne..... | Allen |
| E. Dan Smith, Fort Wayne..... | Allen |
| E. H. Underwood, Fort Wayne..... | Allen |
| Herbert Senseny, Fort Wayne..... | Allen |
| A. E. Stoler, Fort Wayne..... | Allen |
| M. F. Porter, Jr., Fort Wayne..... | Allen |
| D. B. Cain, Evansville..... | Vanderburg |
| L. Heimann, Evansville..... | Vanderburg |
| Philip Warter, Evansville..... | Vanderburg |
| A. I. Munson, Evansville..... | Vanderburg |
| S. K. Ingle, Evansville..... | Vanderburg |
| J. N. Jerome, Evansville..... | Vanderburg |
| R. W. Viehe, Evansville..... | Vanderburg |
| G. M. Young, Evansville..... | Vanderburg |
| M. J. Compton, Evansville..... | Vanderburg |
| Freeman H. Hibben, Chestnut Hill, Mass. | |
| Calvin I. Fletcher, 1023 N. Pennsylvania, | |
| Indianapolis..... | Marion |
| M. B. Light, 63d and College Ave., Indianapolis, | Marion |
| W. N. Wishard, Hume-Mansur Bldg., | |
| Indianapolis..... | Marion |
| James H. Brill, 108 New York St., | |
| Indianapolis..... | Marion |
| G. F. Edenharter, Central Hosp. Insane, | |
| Indianapolis..... | Marion |
| S. P. Scherer, K. of P. Bldg., Indianapolis..... | Marion |
| W. S. Tomlin, Hume-Mansur Bldg., | |
| Indianapolis..... | Marion |
| Luella M. Schneck, 320 N. Meridian St., | |
| Indianapolis..... | Marion |
| Henry Jameson, Hume-Mansur Bldg., | |
| Indianapolis..... | Marion |
| T. Victor Keene, Hume-Mansur Bldg., | |
| Indianapolis..... | Marion |
| J. T. Sheeler, K. of P. Bldg., Indianapolis..... | Marion |
| P. E. McCown, 623 Hume-Mansur Bldg., | |
| Indianapolis..... | Marion |
| H. O. Pantzer, Willoughby Bldg., Indianapolis, | Marion |
| Sidney J. Hatfield, 2304 Stewart St., | |
| Indianapolis..... | Marion |
| James H. Taylor, 618 Hume-Mansur Bldg., | |
| Indianapolis..... | Marion |
| Harry A. Jacobs, 332 Newton-Claypool Bldg., | |
| Indianapolis..... | Marion |
| H. A. Hutcheson, 2208 E. Washington, | |
| Indianapolis..... | Marion |
| Simon J. Young, 507 Hume-Mansur Bldg., | |
| Indianapolis..... | Marion |
| N. P. Graham, Willoughby Bldg., Indianapolis, | Marion |
| K. W. Hidy, Y. M. C. A. Bldg., Indianapolis..... | Marion |
| Lee W. Barry, Y. M. C. A. Bldg., Indianapolis, | Marion |
| Thos. J. Dugan, 2540 W. Washington, | |
| Indianapolis..... | Marion |
| Leslie H. Maxwell, Pennway Bldg., | |
| Indianapolis..... | Marion |
| W. H. Wishard, 2130 Central Ave., | |
| Indianapolis..... | Marion |
| D. W. Fosler, Willoughby Bldg., Indianapolis, | Marion |
| J. P. Wilson, Scottsburg..... | Scott |
| W. L. McClain, Scottsburg..... | Scott |
| Levi McClain, Scottsburg..... | Scott |
| T. E. Biery, Scottsburg..... | Scott |
| Geo. F. Cline, Scottsburg..... | Scott |
| O. C. Murphy, Scottsburg..... | Scott |
| Joseph Rubsan, Logansport..... | Cass |
| F. W. Terflinger, Logansport..... | Cass |
| L. W. Yule, Logansport..... | Cass |
| Mary Widdop, Logansport..... | Cass |
| Earl Palmer, Logansport..... | Cass |
| A. L. Palmer, Logansport..... | Cass |

| NAME AND ADDRESS | COUNTY SOCIETY | NAME AND ADDRESS | COUNTY SOCIETY |
|--|----------------|---------------------------------------|----------------|
| W. H. Richardson, North Vernon..... | Jennings | W. D. Ashbury, Coalmont..... | Vigo |
| D. W. Mathews, Commiskey..... | Jennings | J. R. Love, Terre Haute..... | Vigo |
| L. M. Davis, Hayden..... | Jennings | H. H. Ward, Coalmont..... | Vigo |
| Wm. A. Wildman, San Jacinto..... | Jennings | A. G. Porter, Terre Haute..... | Vigo |
| M. F. Daubenheyer, Butlerville..... | Jennings | W. R. Mattox, Terre Haute..... | Vigo |
| J. W. McClure, Milan..... | Jennings | D. B. Miller, Terre Haute..... | Vigo |
| D. L. McAuliffe, North Vernon..... | Jennings | J. C. Bohn, Terre Haute..... | Vigo |
| John H. Green, North Vernon..... | Jennings | D. A. Bethea, Terre Haute..... | Vigo |
| D. W. Robertson, Deputy..... | Jennings | D. L. Hale, Terre Haute..... | Vigo |
| Revel Bannister, Paris Crossing..... | Jennings | G. C. Congleton, Terre Haute..... | Vigo |
| W. J. Mitchel, North Vernon..... | Jennings | I. D. White, Clinton..... | Vigo |
| W. L. Wilson, Scipio..... | Jennings | W. D. Calvin, Fort Wayne..... | Allen |
| Chas. C. McFarlan, Zenas..... | Jennings | S. H. Havice, Fort Wayne..... | Allen |
| T. F. Seymour, Mishawaka..... | St. Joseph | E. D. Wagoner, Burrows..... | Carroll |
| Chas. Stoltz, South Bend..... | St. Joseph | J. R. Carney, Pyrmont..... | Carroll |
| A. G. Bartholomew, South Bend..... | St. Joseph | S. V. Wilking, Boston, Mass..... | |
| H. C. Groman, Hammond..... | Lake | R. F. Palmer, Frankfort..... | Clinton |
| F. M. Wiles, Indianapolis..... | Owen | I. C. Lambert, Colfax..... | Clinton |
| W. W. Harris, Ellettsville..... | Owen | Ross M. Reagan, Monon..... | White |
| O. K. Harris, Ellettsville..... | Owen | Grant Goodwin, Monticello..... | White |
| Paul E. Robinson, 114 S. Noble St., Indianapolis..... | Marion | Madison T. Didlake, Monticello..... | White |
| J. L. Freeland, Hume-Mansur Bldg., Indianapolis..... | Marion | A. J. Blickenstaff, Wolcott..... | White |
| W. F. Clevenger, Newton-Claypool Bldg., Indianapolis..... | Marion | John F. Glover, Evansville..... | Vanderburg |
| Horace E. Adams, Harland..... | Allen | John Sipe, Carthage..... | Rush |
| P. B. Thomas, Decatur..... | Adams | M. F. Curtner, Vincennes..... | Knox |
| J. M. Miller, Decatur..... | Adams | E. Doan, Mishawaka..... | St. Joseph |
| E. Franz, Berne..... | Adams | H. J. Graham, Mishawaka..... | St. Joseph |
| Wm. P. Harter, Anderson..... | Madison | E. M. Folsom, Boonville..... | Warrick |
| J. A. Craig, Gary..... | Lake | Wm. H. Mills, Boonville..... | Warrick |
| C. C. Robinson, Indiana Harbor..... | Lake | C. J. Stover, Eaton..... | Delaware |
| R. Ansley, Indiana Harbor..... | Lake | Thos. L. Cooksey, Crawfordsville..... | Montgomery |
| W. F. Houk, Crown Point..... | Lake | G. E. Clements, Crawfordsville..... | Montgomery |
| W. C. Furney, Sharpsville..... | Tipton | Warren R. King, Greenfield..... | Hancock |
| H. E. Grishaw, Tipton..... | Tipton | W. A. Justice, Greenfield..... | Hancock |
| A. S. Dickey, Tipton..... | Tipton | Oscar Heller, Greenfield..... | Hancock |
| M. V. B. Newcomer, Tipton..... | Tipton | Milo Gibbs, Greenfield..... | Hancock |
| A. W. Gifford, Tipton..... | Tipton | E. G. Regenas, Hope..... | Bartholomew |
| A. E. Burkhardt, Tipton..... | Tipton | O. A. DeLong, Azalia..... | Bartholomew |
| W. E. McKee, Tipton, R. R. 6..... | Tipton | M. Hassenmiller, West Baden..... | Orange |
| S. M. Cotton, Goldsmith..... | Tipton | G. G. Colglazier, Leipsic..... | Orange |
| E. I. Hinkle, Goldsmith..... | Tipton | C. E. Boyd, West Baden..... | Orange |
| E. B. Moser, Windfall..... | Tipton | Lynn Rogers, French Lick..... | Orange |
| B. B. Thorpe, Curtisville..... | Tipton | Wm. A. Mowry, French Lick..... | Orange |
| T. W. Longfellow, Windfall..... | Tipton | M. Robinson, French Lick..... | Orange |
| H. G. Read, Tipton..... | Tipton | W. W. Sloan, French Lick..... | Orange |
| W. F. Dunham, Kempton..... | Tipton | F. E. Hammond, French Lick..... | Orange |
| H. S. Gifford, Sharpsville..... | Tipton | J. R. Dillinger, French Lick..... | Orange |
| Albert A. Kramer, Butler..... | De Kalb | H. L. Miller, West Baden..... | Orange |
| W. H. Nusbaum, Auburn..... | De Kalb | T. B. Ritter, Orleans..... | Orange |
| P. H. Schoen, New Albany..... | Floyd | R. E. Baker, Orleans..... | Orange |
| J. W. Coleman, Petersburg..... | Pike | C. L. Boyd, Paoli..... | Orange |
| J. W. Petitjean, Haubstadt..... | Gibson | S. F. Teaford, Paoli..... | Orange |
| H. R. Spickerman, Muncie..... | Delaware | Laban Lindley, Paoli..... | Orange |
| C. P. Bacon, Evansville..... | Vanderburg | C. W. Dowden, West Baden..... | Orange |
| W. H. Field, Evansville..... | Vanderburg | H. C. Sharp, West Baden..... | Orange |
| Edwin Randall, Ambia..... | Benton | E. M. Van Buskirk, Fort Wayne..... | Allen |
| L. D. Dillman, Connersville..... | Fayette | E. J. McOscar, Fort Wayne..... | Allen |
| N. S. Wood, Anderson..... | Madison | L. L. Culp, Red Lake, Minn..... | Allen |
| M. A. Austin, Anderson..... | Madison | J. W. McGowan, Oakland City..... | Gibson |
| Doris Meister, Anderson..... | Madison | J. A. Taylor, Montpelier..... | Blackford |
| H. C. Martindale, Pendelton..... | Madison | H. E. Allen, Clarksville..... | Tippecanoe |
| W. R. Sparks, Pendelton..... | Madison | Urban A. Lyle, Lafayette..... | Tippecanoe |
| Alfred Mathys, Mauckport..... | Harrison | G. K. Throckmorton, Lafayette..... | Tippecanoe |
| John D. Hendricks, Lizton..... | Hendricks | A. B. Westfall, Lafayette..... | Tippecanoe |
| R. E. Jones, Clayton..... | Hendricks | Curtis M. Wray, New Richmond..... | Tippecanoe |
| Wilson T. Lawson, Danville..... | Hendricks | W. L. Royster, Evansville..... | Vanderburg |
| Wm. H. Terrell, Pittsboro..... | Hendricks | J. L. Allen, Greenfield..... | Hancock |
| L. F. Hicks, Stilesville..... | Hendricks | B. M. Edlavitch, Fort Wayne..... | Allen |
| E. Ray Royer, North Salem..... | Hendricks | S. D. Slodd, Fort Wayne..... | Allen |
| D. M. Reynolds, Clayton..... | Hendricks | W. W. Carey, Fort Wayne..... | Allen |
| Maria Jessup, Friendswood..... | Hendricks | I. N. Myers, Maples..... | Allen |
| A. W. Davidson, Brownsburg..... | Hendricks | F. B. Snyder, Camden..... | Carroll |
| John L. Marsh, Brownsburg..... | Hendricks | L. Mason, Bluffton..... | Wells |
| L. W. Armstrong, Danville..... | Hendricks | C. L. Blue, Toesin..... | Wells |
| | | M. W. McLain, Vera Cruz..... | Wells |
| | | A. Jeffers, Birdseye..... | Dubois |
| | | Victor Kuapp, Ferdinand..... | Dubois |

| NAME AND ADDRESS | COUNTY SOCIETY | NAME AND ADDRESS | COUNTY SOCIETY |
|--|----------------|--|----------------|
| Jos. F. Casper, Jasper..... | Dubois | H. C. Knapp, Howell..... | Vanderburg |
| E. E. Schriefer, Ferdinand..... | Dubois | W. S. Pritchett, Evansville..... | Vanderburg |
| F. H. Fox, Hammond..... | Lake | I. Miley, Anderson..... | Madison |
| L. E. Cox, Greenwood..... | Johnson | Weir Miley, Anderson..... | Madison |
| G. W. Horrom, Hatfield..... | Spencer | J. R. Tracy, Anderson..... | Madison |
| H. G. Weiss, Rockport..... | Spencer | O. W. Brownback, Pendleton..... | Madison |
| C. S. Baker, Chrisney..... | Spencer | A. W. Gante, Anderson..... | Madison |
| S. P. Gwaltney, Midway..... | Spencer | B. H. Perce, Anderson..... | Madison |
| D. V. McClary, Dale..... | Spencer | S. C. Norris, Anderson..... | Madison |
| N. L. Medcalf, Lamar..... | Spencer | R. C. Peare, Bellmore..... | Parke |
| C. W. Bradley, Gentryville..... | Spencer | R. S. Mitchell, Washington..... | Daviess |
| Otto Baumgartner, Rockport..... | Spencer | Frank Lynn, Peru..... | Miami |
| J. J. Schweizer, Santa Claus..... | Spencer | O. U. Carl, Peru..... | Miami |
| A. M. Bean, Chrisney..... | Spencer | J. L. Morris, Princeton..... | Gibson |
| C. D. Ehrman, Rockport..... | Spencer | H. E. Steinman, Monroeville..... | Allen |
| J. C. Glackman, Hatfield..... | Spencer | J. D. Foor, Terre Haute..... | Vigo |
| N. A. James, St. Meinrad..... | Spencer | G. C. Carpenter, Terre Haute..... | Vigo |
| H. T. Harter, Newtonville..... | Spencer | F. A. Tabor, Terre Haute..... | Vigo |
| S. C. Lang, Rockport..... | Spencer | J. A. Cooper, Terre Haute..... | Vigo |
| W. H. Williams, Dale..... | Spencer | L. Z. Breaks, Terre Haute..... | Vigo |
| C. H. Adye, Rockport, R. R..... | Spencer | Ott Casey, Terre Haute..... | Vigo |
| S. W. Stuteville, Grandview..... | Spencer | Clyde Carmichael, Seeleyville..... | Vigo |
| H. Q. White, Grandview..... | Spencer | H. M. Aspy, Geneva..... | Adams |
| J. R. Lang, Rockport..... | Spencer | J. W. Vizard, Pleasant Mills..... | Adams |
| W. H. Harrison, Lame Deer, Mont. | | T. J. Mansfield, Muncie..... | Delaware |
| C. A. White, Danville..... | Hendricks | L. S. Wallace, Bunker Hill..... | Miami |
| John S. Ragan, Plainfield..... | Hendricks | Jas. T. Hazel, Freedom..... | Owen |
| Joel T. Barker, Danville..... | Hendricks | F. A. Williams, Quincy..... | Owen |
| Thomas R. Barker, Danville..... | Hendricks | J. R. Eastman, 331 N. Delaware St., | |
| Wm. J. Hoadley, Danville..... | Hendricks | Indianapolis..... | Marion |
| J. P. Spooner, Peru..... | Miami | T. B. Eastman, Pennway Bldg., Indianapolis..... | Marion |
| E. F. Kratzer, Wawpecong..... | Miami | A. E. Otto, Alexandria..... | Madison |
| C. J. Helm, Peru..... | Miami | L. E. Schmauss, Alexandria..... | Madison |
| O. C. Waincott, Peru..... | Miami | L. E. Alexander, Pendleton..... | Madison |
| E. M. Bloomfield, Peru..... | Miami | Lee F. Hunt, Anderson..... | Madison |
| E. A. Mills, Miami..... | Miami | V. C. Griffis, Williamsburg..... | Wayne |
| F. L. Resler, Amboy..... | Miami | J. M. Fouts, Centerville..... | Wayne |
| John Freczee, Bunker Hill..... | Miami | S. E. Smith, East Haven..... | Wayne |
| J. R. Abuer, Hamlet..... | Starke | M. W. Yencer, Richmond..... | Wayne |
| J. L. Denaut, Hamlet..... | Starke | V. N. Fackler, Dublin..... | Wayne |
| Harry Bell, Knox..... | Starke | W. R. Littell, Cambridge City..... | Wayne |
| P. O. Englerth, North Judson..... | Starke | W. T. Griffis, Fountain City..... | Wayne |
| Albert Fisher, North Judson..... | Starke | A. E. Ehle, East Germantown..... | Wayne |
| D. O. White, Knox..... | Starke | P. W. McCarthy, 2022 W. Washington, | |
| S. I. Brown, Knox..... | Starke | Indianapolis..... | Marion |
| W. T. Fisher, Centerville..... | Wayne | L. C. Cline, Willoughby Bldg., Indianapolis..... | Marion |
| M. F. Johnston, Richmond..... | Wayne | C. L. Ward, 339 Virginia Ave., Indianapolis..... | Marion |
| S. E. Bond, Richmond..... | Wayne | A. O. Ward, 339 Virginia Ave., Indianapolis..... | Marion |
| J. W. Squires, Fort Wayne..... | Allen | S. R. Laubscher, Evansville..... | Vanderburg |
| A. J. Chittick, Burlington..... | Carroll | W. J. Reavis, Evansville..... | Vanderburg |
| E. E. Dougherty, 1106 W. 30th, Indianapolis..... | Marion | Geo. F. Greenleaf, Evansville..... | Vanderburg |
| D. W. Layman, Hume-Mansur Bldg., | | A. R. Burton, Princeton..... | Gibson |
| Indianapolis..... | Marion | W. A. Hobday, Goldfield, Nev. | |
| M. O. DeVaney, 1603 S. East, Indianapolis..... | Marion | V. C. Patten, Morristown..... | Shelby |
| N. E. Harold, Newton-Claypool Bldg., | | B. T. Daggy, Petersville..... | Bartholomew |
| Indianapolis..... | Marion | M. L. Wagner, Peru..... | Miami |
| John B. Long, 744 W. New York St., | | John E. Yarling, Peru..... | Miami |
| Indianapolis..... | Marion | J. C. Alexander, Newton-Claypool Bldg., | |
| Chas. J. Cook, 958 E. Washington St., | | Indianapolis..... | Marion |
| Indianapolis..... | Marion | M. W. McConnell, Sullivan, Ind..... | Marion |
| E. A. Brown, Hume-Mansur Bldg., | | Chas. A. Pfafflin, Newton-Claypool Bldg., | |
| Indianapolis..... | Marion | Indianapolis..... | Marion |
| C. L. Ritter, Newton-Claypool Bldg., | | H. H. Tallman, Culver..... | Marshall |
| Indianapolis..... | Marion | Jas. M. Atkinson, Eaton..... | Delaware |
| W. F. Hughes, Newton-Claypool Bldg., | | G. G. Brudi, New Haven..... | Allen |
| Indianapolis..... | Marion | Onis E. Brendel, Zionsville..... | Boone |
| S. Adams, Beech Grove, Indianapolis..... | Marion | Homer B. Gable, Monticello..... | White |
| E. DeW. Wales, Hume-Mansur Bldg., | | J. P. Galbreth, Burnettsville..... | White |
| Indianapolis..... | Marion | W. G. Huffman, Richmond..... | Wayne |
| Henry Ostroff, Reno, Nev. | | E. P. Buche, Richmond..... | Wayne |
| J. V. Read, Hume-Mansur Bldg., Indianapolis..... | Marion | O. N. Huff, Fountain City..... | Wayne |
| D. A. Anderson, Newton-Claypool Bldg., | | O. M. Deardorff, Hagerstown..... | Wayne |
| Indianapolis..... | Marion | W. W. Anderson, Richmond..... | Wayne |
| R. O. McAlexander, 320 N. Meridian St., | | W. B. Siders, Millersburg..... | Elkhart |
| Indianapolis..... | Marion | J. N. Alexander, Greensburg..... | Decatur |
| E. F. W. Crawford, Hanna..... | La Porte | B. O. White, Sedalia..... | Clinton |
| H. L. Thompson, La Porte..... | La Porte | Amos Carter, Plainfield..... | Hendricks |

| NAME AND ADDRESS | COUNTY SOCIETY | NAME AND ADDRESS | COUNTY SOCIETY |
|--|-----------------|--|----------------|
| Ernest Cooper, Plainfield | Hendricks | C. P. Hutchins, Bloomington.. | Monroe |
| C. B. Thomas, Plainfield..... | Hendricks | W. N. Culmer, Bloomington..... | Monroe |
| C. A. Underwood, Danville..... | Hendricks | J. E. Moser, Bloomington..... | Monroe |
| Dwight Mackey, Hobart..... | Lake | E. Kruse, Fort Wayne..... | Allen |
| E. W. Burris, 2608 W. Michigan, Indianapolis | Marion | D. E. Kauffman, Monroeville..... | Allen |
| Louis Burekhardt, Hume-Mansur Bldg., Indianapolis | Marion | J. D. Morgan, Dixon, Ohio..... | Allen |
| W. L. Jennings, Bridgeport, Ind. | Marion | Wm. Enslen, Fort Wayne..... | Allen |
| Jas. R. Lewis, 225 S. Noble, Indianapolis..... | Marion | C. E. Barnett, Fort Wayne..... | Allen |
| W. C. Farnham, Fort Wayne..... | Allen | F. A. Crull, Fort Wayne..... | Allen |
| Aron L. Bowman, Rochester, R. F. D. | Fulton | O. H. Stewart, Orleans..... | Orange |
| A. E. Fauve, Fort Wayne..... | Allen | S. L. Lingle, Paoli..... | Orange |
| Chas. E. Neischang, Fort Wayne..... | Allen | R. B. McKeeman, Fort Wayne..... | Allen |
| J. V. Milligan, Michigan City..... | La Porte | W. B. Rice, Fort Wayne..... | Allen |
| E. B. Malone, Columbus, Mont. | | Dean Metcalf, Fort Wayne..... | Allen |
| G. M. Pell, Carbon..... | Clay | John Schilling, Fort Wayne..... | Allen |
| J. William Huffman, Poland..... | Clay | S. E. Meutzer, Monroeville..... | Allen |
| W. H. Orr, Brazil..... | Clay | C. B. Stemen, Fort Wayne..... | Allen |
| L. S. Hirt, Brazil..... | Clay | J. A. Teagarden, Indiana Harbor..... | Lake |
| Frederick Nussel, Brazil..... | Clay | Carl Boardman, Gary..... | Lake |
| J. Lambert, Brazil | Clay | Norman E. Jobs, Traction Terminal Bldg., Indianapolis | Marion |
| C. C. Sourwine, Brazil..... | Clay | A. L. Barnes, Southport, Ind. | Marion |
| J. D. Sourwine, Brazil..... | Clay | J. C. Anderson, 108 S. Audubon Rd., Indianapolis | Marion |
| F. C. Dilley, Brazil..... | Clay | Lafayette Page, Hume-Mansur Bldg., Indianapolis | Marion |
| P. H. Veach, Staunton..... | Clay | Ray Newcomb, Hume-Mansur Bldg., Indianapolis | Marion |
| M. H. Young, Harmony..... | Clay | Robt. N. Todd, 2050 N. Senate, Indianapolis, Marion | |
| Gilbert R. Finch, Center Point..... | Clay | Walter D. Hoskins, 3630 Central, Indianapolis, Marion | |
| U. L. Muncie, Brazil, R. F. D. 2..... | Clay | Geo. R. Christian, 1449 Prospect St., Indianapolis | Marion |
| Harry M. Pell, Brazil..... | Clay | John Spaulding, 545 Fletcher Ave., Indianapolis | Marion |
| J. A. Rawley, Brazil..... | Clay | F. C. Klein, 911 Newton-Claypool Bldg., Indianapolis | Marion |
| D. P. Murray, Dunkirk..... | Jay | E. B. Mumford, 504 Newton-Claypool Bldg., Indianapolis | Marion |
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| Mary Van Nuys, Lebanon..... | Boone | G. A. Shultz, Lebanon..... | Boone |
| Ilerma Beck, Lebanon..... | Boone | De Laskie Smith, Lebanon..... | Boone |
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| Clancy Bassett, Thornton | Boone | Wesley Wilson, Newburg | Warriek |
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| F. M. Jeffries, Odell..... | Fountain-Warren | Z. M. Beaman, North Manchester..... | Wabash |
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| Geo. S. Porter, Williamsport..... | Fountain-Warren | | |
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| H. M. Mugg, Clarkhill..... | Tippecanoe | | |
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| J. F. Lyzadder, Bloomington..... | Monroe | | |
| Iomer Woolery, Bloomington | Monroe | | |
| J. D. Bobbit, Bloomington..... | Monroe | | |
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| W. T. S. Dodds, Hume-Mansur Bldg., Indianapolis | Marion |
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| G. B. Jackson, Pennway Bldg., Indianapolis | Marion |
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| Chas. A. Carter, 309 Tacoma Bldg., Indianapolis | Marion |
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| H. H. Thompson, Noblesville | Hamilton |
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| R. J. Pierce, Richmond | Wayne |
| G. R. Hays, Richmond | Wayne |
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| P. S. Johnson, Sheridan | Hamilton |
| J. M. Dimmen, Fort Wayne | Allen |
| Clark Rogers, Logansport | Cass |

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| Paul Coble, Pennway Bldg., Indianapolis..... | Marion | E. E. Kirk, Spiceland..... | Henry |
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| Jas. Egbert, 1648 N. Alabama St., Indianapolis..... | Marion | F. C. Hess, Cadiz..... | Henry |
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| H. S. Leonard, 1203 E. 19th St., Indianapolis, Marion | | F. C. Robinson, Martinsville..... | Morgan |
| W. D. Gatch, 605 Hume-Mansur Bldg., Indianapolis..... | Marion | | |
| E. C. Reyer, Newton-Claypool Bldg., Indianapolis..... | Marion | | |
| Wm. S. Beck, 73 Lombard Bldg., Indianapolis, Marion | | | |
| Paul F. Martin, Hume-Mansur Bldg., Indianapolis..... | Marion | | |
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| Chas. L. Smullen, Raleigh..... | Rush | | |
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| W. F. Schrader, Fort Wayne..... | Allen | | |
| T. L. Taylor, Fort Wayne..... | Allen | | |
| S. M. Compton, Brazil..... | Clay | | |
| B. O. Burress, Alfordsville..... | Daviess | | |
| S. T. Henderson, Fort Wayne..... | Allen | | |
| Henry Ranke, Fort Wayne..... | Allen | | |
| R. P. White, Fort Wayne..... | Allen | | |
| J. E. Bickel, Fort Wayne..... | Allen | | |
| Kenosha Sessions, Indianapolis..... | Marion | | |
| G. W. Tepe, Evansville..... | Vanderburg | | |

INDIANAPOLIS MEDICAL SOCIETY

Meeting of March 4

Meeting called to order by Vice-President J. A. Pfaff. Number present 60. Minutes of the last meeting read and adopted. Applications of G. W. Seaton and Raymond A. Butler read for the second time.

The first cases of the evening were reported by Dr. Paul Coble. "Sewing Needle in Junction of Tongue and Epiglottis." Farm hand, age 25; while eating swallowed something of a foreign nature, immediate sharp lancinating pain deep in throat. After several hours pains grew less. One week from date of injury patient presented himself. Symptoms: difficulty in swallowing, even water, partly because of pain and because of extreme swelling of the glossopharyngeal tissues. Thorough cocaineization of the fauces. Examination showed sewing needle with thread attached lodged crosswise low between the tongue and epiglottis. This removed with laryngeal forceps. After few days edema gone and patient able to eat. Two months passed and patient still had some pain on swallowing. Was probably exaggerating symptoms as there was no persistence of pathologic condition.

"Fragment of Bone in Esophagus." Lady, aged 45. Pain at root of tongue on left side. No history of having swallowed anything unusual. No marked change in tissues of throat. External application and aspirin internally prescribed. Two days later, slight improvement in pain, but liquids were regurgitated and the pain had moved lower down. Examination again showed nothing. Esophageal bougie passed for psychical effect. Bougie No. 12 (McKenzie) passed down without difficulty. On removal found sliver of bone about one inch in length with rough edge sticking to bougie. She was able to swallow food in three days

but fully three weeks passed before complete recovery occurred. These cases illustrate the need for close examination of the throat in all suspicious cases.

Case of Dr. W. F. Hughes, "Chorioretinitis." Dr. Hughes presented a case of acute inflammation of the chorioid and retina associated with a four months' pregnancy with a mild degree of gastro-intestinal disturbance, probably of a reflex character. The etiology of the condition was considered in detail. All possible causal factors were eliminated except some toxins derived directly from the gestation or from the primary or secondary gastro-intestinal disturbance. The identification of the exact toxin cannot be definitely established. Distinct improvement followed a thorough course of elimination. The case shows the close relationship of the eye with disturbances of the general system, and the frequent necessity of general treatment in ocular diseases.

Dr. E. B. Mumford was absent and his case "Premature Infant" was not presented.

In the absence of Drs. E. D. Clark and F. R. Charleston, Dr. Cole gave the Society the facts in their case of sudden death following the injection of silver solution into the ureter for skiagraphic purposes. Patient, a feeble man, age 70. Palpable tumor over left kidney. Silver solution injected through ureteral catheter up to the pelvis of the kidney. One-half minute later, collapse, pulse imperceptible, considerable cyanosis, respiration almost absent, revived a bit after a while and skiagraph taken. Patient still cyanosed. Taken to the hospital where he died a few hours later. There was nothing unusual in the technic of the operation and the question is "What caused the death." Dr. Cole attributes it to dilatation of a probably degenerated myocardium brought about by the pain of the operation. The skiagram showed a large diseased kidney. A little of the solution had percolated outside of the kidney. There was no unusual force applied in the injection. The cocaine used in the urethra was of the ordinary strength. Dr. Cole knew of no deaths ever having been reported under the same operation. Is not decided as to the cause of death.

Dr. T. B. Eastman asked for suspension of the rules of the Society in favor of Dr. Noble, who had two cases to report and fresh specimens taken that day to show. He desired to report the cases while the specimens were fresh.

Case 1.—Simple uterine fibroma with abortive extra-uterine pregnancy. Case diagnosed before operation as uterine fibroid with salpingitis. Tumor size of cocoonut, irregular, and impregnated tube in the act of aborting. The remarkable feature was that the spermatozoon could pass through such a uterus to the fallopian tube.

Case 2.—Woman, aged 28. History of fairly regular menstruation; no children; had been aware of a tumor for a number of months. Examination showed tumor to be fluctuant, not painful, movable, resembling to touch an ovarian tumor. It was continuous with the cervix. There was no fetal impulse or fetal heart-sound. Abdomen opened. Uterus resembled in size a seven months' pregnant uterus. It was filled with fluid and in this fluid was an irregular hard body corresponding in size with a fetus of seven months. Resembled in all a pregnant uterus except that there was no suffle and no fetal heart-sound. Uterus removed. When opened it showed submucous fibroid with myxomatous degeneration.

These cases show the difficulty of surgical diagnosis even with the abdomen open and the specimen before the operator.

DISCUSSION

DR. HEATH on Dr. Hughes case: Practitioner should be interested in such eye cases. Chorioiditis in pregnancy not reflex, but usually toxic. Occurs frequently in pregnancy without albuminuria.

DR. T. B. EASTMAN on Dr. Noble's cases: The man who says that he can always make a diagnosis in these cases lacks experience. The more experience a man has the more conservative he becomes with his statements of a diagnosis.

DR. TOMLIN on Dr. Coble's case: Cases of foreign bodies in the throat that are difficult of location are not infrequent. The use of the esophagoscope under local anesthesia in the office is not a difficult matter and should be resorted to. In these cases when a foreign body cannot be found, the trouble is often due to an injury to the tissues, perhaps by a foreign body that has passed. It would take a good deal of courage to pass a bougie in these cases. With reference to Dr. Hughes' case Dr. Tomlin reported a case of chorioiditis relieved by removal of irritating turbinate.

DR. THORNER commented on the cases of Dr. Noble, and reported two similar cases which had come before him.

DR. McCOWN on Dr. Cole's case: Death was due possibly to cardiac paralysis caused by pain. All patients do not suffer from the operation. It is possible that we are using solutions of silver that are too strong. Collargol is used from 2 to 35 per cent. The value of pyelography is not fully appreciated. Cases of this nature are usually brought to the surgeon too late.

DR. PADGETT on Dr. Noble's cases: This is the second case of fibroid with ectopic pregnancy that I have heard of. Reported a case in which the patient had left tube removed for tubal pregnancy and the next year had the right tube removed for the same cause.

DR. COLE (closing): This case should not be taken as a warning against the use of silver salts in radiographic work of this kind. Has found that pain follows the procedure in about the same degree whether a strong or a weak solution has been used.

DR. COBLE: It is correct that the passing of the bougie in cases of foreign body in the throat is not as a rule good practice, but in the case in which I used it there was not found after careful questioning any history of patient having swallowed anything unusual and it seemed to me to be simply a case of neurasthenia.

Adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of March 6

Called meeting. Memorial to Dr. James L. Thompson. On the request of Dr. J. A. Pfaff, Dr. G. V. Woollen took the chair.

Dr. Woollen: We doctors do not well to try and persuade ourselves that the soul is not immortal. He is gone from us but he lives in our memory. I have never heard Dr. Thompson say any word about a doctor that he would not have said to the person himself. He was a deep student, a wide reader and a dear friend.

DR. W. N. WISHARD: As time passes the impression of his great work among us will grow. He was not only a student enthusiastic in his study and practice but an exceptionally well rounded man. He was very just in his dealings with his fellow physicians.

DR. F. C. HEATH: The great ophthalmologists of this country and Europe held a very high appreciation of

Dr. Thompson. His reputation was international. He had the honor to be invited to read a paper before the British Medical Association. He was a learned man in literature and history, a scholarly man and a warm personal friend.

Dr. A. W. Brayton spoke appreciatingly of Dr. Thompson as a teacher, a student, a literary man and of his home life. Wherever there were high purposes, good to be done, a friendship to be shown, he was always there.

Dr. Brayton moved that a committee be appointed to write a proper memorial for the Society.

The chair appointed Drs. Brayton, Heath and Wishard, and later added Drs. Woollen and Potter.

Dr. Fletcher Hodges spoke of Dr. Thompson's reserve, his interesting reminiscences, his courtesy, his piety.

Dr. A. E. Sterne: We wait too long to show our appreciation of those we regard. How much more beautiful it would be if we honored them by a united concerted expression while they are still with us. It would be a tender and a beautiful thing for them to remember.

Dr. A. C. Kimberlin: In his college work Dr. Thompson was a man who meant business. He was methodical and a wide reader. When he met you he had something to say to you that made you think.

Dr. H. O. Pantzer: A man above others, who impressed himself on his hearers, a very intense man. He was gifted in utilizing collateral subjects in his teaching. One of the earliest men to take up a specialty. A man foremost in medicine by virtue of his close and conscientious application.

Dr. Theodore Potter: In the death of Dr. Thompson there has passed away one of the great men in medicine in Indiana. His was a remarkable career. He was a leading citizen, a foremost medical man, a distinct business success. A man of broad knowledge, skill and well-ripened judgment. A man of remarkable accuracy. He was considerably afflicted in his later years and life had little of comfort for him.

Dr. J. B. Kitchen sent word that he felt his loss most keenly. He had always regarded him as a dear friend.

The resolution adopted by the society is herewith attached.

Resolution of the Society on the death of Dr. Thompson:

The life and work of Dr. James Livingston Thompson is known to all. It is as an open book. He was great in all of the relations of life; as a soldier, as citizen, as Christian, as husband and father, as the loved physician—the good man skilled in healing. He was the leading teacher and practitioner in his field of medicine, the first ophthalmologist in our state, and one of the leaders in his specialty in the United States. To his remaining family, his daughter Mrs. John Oliver, to his sister and to his grandchildren, and to all who have come within the sphere of his care, his science and his affection, this Society which loves and honors his memory, tenders its sympathy and affection in their bereavement.

Meeting of March 11

Meeting called to order by the vice-president. Number present 58. Minutes of the last meeting read and approved.

The paper of the evening was read by Dr. S. L. Egart. In his paper Dr. Egart advocated the diligent study of some simple measures for the production of anesthesia, especially with ether. He believes that ether by the open drop method under the supervision of an

experienced hand is the best for the beginner, both as regards the safety of the patient and the interest of the anesthetist. For the good of the anesthetist he does not recommend any preliminary medication, because he would have the anesthetist become thoroughly conversant with the action of the anesthetic under all circumstances before he introduced other factors even though they be ameliorating factors.

He believes that there is no absolute rule for the giving of anesthetics and that whatever measures are employed the results will always be in proportion to the practice that has been given to the measure in hand and to the skill of the anesthetist in executing it.

He advocates the giving of special attention toward keeping the air passages open. In addition to the ordinary measures for securing an open air passage, he recommends the use of a sponge on a curved forceps. He also advocated the use of the Pinchon suction apparatus, which he demonstrated.

Reasons were given why some cases require more time in coming to complete relaxation as well as why it is dangerous to push certain difficult cases. He mentioned especially the action of the reflexes and showed how disease and painful conditions in certain regions of the body may make it necessary to use caution in pushing the anesthetic to full relaxation.

DISCUSSION

DR. GATCH: Ether is the safest anesthetic under general conditions. All anesthetics are dangerous. Team work of the operator and anesthetist is important. The control of mucus is vital. Dr. Gatch discussed the Trendelenburg position from the standpoint of cardiac and respiratory failure. Dogs etherized and placed in this position die in from three minutes to half an hour. This is due to cardiac dilatation from the increased intracardiac blood-pressure.

DR. SHIPP: Each anesthetist has his own method. Every anesthetist should know the action of the anesthetic agent by taking that agent to the point of complete anesthesia. Forceful quick inspiration is less irritating, a sensation of cold being experienced instead of the irritation of the ether. Head sidewise to permit the mucus to flow out.

DR. NEWCOMB: There is no such thing as a corneal reflex. The eye is better left alone. Ether burns of the cornea are common. Castor oil in the eye before the anesthetic is started will prevent ether burns.

DR. WYNN: Ether stimulates the flow of mucus throughout the entire bronchial tract. Sponge or suction will not reach far enough to remove this mucus. Mucus in the bronchi and bronchioles produces a pulmonary venous stasis. This increases the strain on the right heart. Heart muscle becomes fatigued. This leads sometimes to permanent injury to the heart. The condition of pulmonary stasis with hampered circulation is similar to the condition obtained in pneumonia.

DR. NOBLE: If ether is good for students it should be good for others. Morphin depresses respiration and the patient gets less ether vapor in the lungs no matter how much is poured onto the mask. The anesthetist should be a psychologist. Should be able to exert a psychical power over the patient. Team work is necessary. The anesthetist is welcome to the responsibility if he will take the blame for accidents.

DR. KIMBERLIN: The family physician should not be forgotten in the team work. He must prepare the

patient mentally and physically for the operation. He must also take care of the postoperative neurasthenia. Dr. Kimberlin took exception to Dr. Noble's views on pre-anesthetic narcotics.

DR. LEE does not believe that chloroform should be discarded. It is probably not so dangerous as we are led to believe.

DR. YOUNG: Surgeon should use more care in preparation of the patient for operation.

DR. EGART: The corneal reflex was mentioned in the paper but was not recommended. It is seldom if ever necessary.

Adjourned. ARTHUR E. GUEDEL, Secretary.

Meeting of March 18

In the absence of the president and vice-president, the meeting was called to order by Dr. Kitchen. Number present 40.

Dr. Kitchen asked Dr. Hamer to take the chair.

Dr. McKinstry moved the adoption of the amendment to Section 7 of the By-Laws regarding fee splitting, as presented. Seconded. Dr. Kitchen proposed an amendment to the amendment as submitted and moved its acceptance. Seconded. On the motions of Dr. Potter and Dr. Dodds both the amendment to the amendment and the amendment as originally submitted were tabled. Dr. Potter moved that the matter of amending the By-Laws with reference to fee splitting be referred to the Council for consideration. Carried.

On the motion of Dr. Potter the amendment referring to the election of a second vice-president was adopted. The amendment will affect Article 5 of the Constitution and will change that article to read: "The officers of this Society shall consist of a president, first vice-president, second vice-president, secretary, treasurer, etc."

Applications: First reading, Herbert Wagner. Second reading, W. E. Tinney, R. C. Beeler, Carl Habich. Raymond Butler was elected to membership in the society.

The first paper of the evening was read by Dr. J. T. Wheeler. Subject, "Fractures of the Maxillae." Many cases of fractures of the maxillae were enumerated. Diagnosis is simple. Prognosis is good, union usually being complete in from four to six weeks providing the fracture has been properly put up and retained. Faulty results are due to faulty reduction and retention. The methods of retention are many and varied. In selecting mode of retention the individual case must be carefully considered. Simple external immobilization best for the first few days, after which time wiring of the teeth seems to be the best method for retention. The mouth must be kept clean.

The second paper was read by Dr. D. F. Lee. Subject, "Conservation of Ovarian Tissue and Its Power of Compensation." The remaining ovary compensates. An undeveloped ovary often develops into a good functioning organ after the diseased ovary of the other side has been removed. Trophic influence of ovarian tissue undoubted. Desiccated extracts given internally are of temporary benefit only. Transplantation of ovarian tissue is practical. The auto graft or the hetero graft may be used. Graft may be made into the uterus, the peritoneal cavity or subcutaneously. The location makes little difference. The graft is valuable in the young subject. If near the menopause it is of course not important.

DISCUSSION

DR. SLUSS on Dr. Wheeler's paper: It is very common to see fracture of the base of the skull in connection with fractures of the jaw. This may not give rise to immediate symptoms. Is often overlooked. In fractures of the ramus the muscles internal pterygoid and the masseter form effective splints. There is no rule in treating these cases that will hold good in all. Wiring upper and lower teeth together is a good method but needs close and careful attention. Vomiting with the jaws wired together might cause some inconvenience to the patient.

DR. H. R. ALLEN: Ordinarily black silk thread will serve as well as wire and is not so irritating. It is used as wire would be used.

DR. KISER: Would like to ask Dr. Lee who is the mother of a baby born of a woman who has had the ovary of another woman grafted into her.

DR. JACKSON: How much advantage is there in grafting the ovary from a woman near the menopause into a younger woman? The ovary is already about to stop functioning. In the heterograft case, the woman who had given her ovary to the other would be the mother of the other's baby.

DR. WHEELER (closing): There is usually little danger of vomiting after the first few days. An outside retainer is the best dressing until the danger of vomiting, etc., is past. Then the wire can be applied. Wire is more stable than silk. It can be tightened more easily. The ends can be turned in between the teeth so that they will not irritate.

DR. LEE (closing): In the case in which I transplanted an ovary from a woman near the menopause to a young woman, the latter began to menstruate after four months. I have had no opportunity to follow the case.

Adjourned. ARTHUR E. GUEDEL, Secretary.

JEFFERSON COUNTY

Meeting of February 26

Society met in regular session Feb. 26, 1913. The essayist being absent, a general discussion of different subjects ensued.

The fees for medical examiners in insanity inquests was one of the subjects discussed. The justices of the peace make different allowances for these services. Some allow the medical attendant three dollars per day and examiners two dollars per day, while some allow just the opposite. Is it right for a physician to have to leave his work and drive ten or twelve miles and probably be gone all day for the sum of three or four dollars? This is the question we would like to have settled.

On request of the National Red Cross Society that a committee be appointed to act in conjunction with that society in case of disaster, the matter was left in the hands of the executive committee to make such appointments.

Adjourned. FRED C. DENNY, Secretary.

Meeting of March 12

The Society met in regular session Wednesday, March 12, 1913, the president, Dr. S. A. Whitsitt, in the chair. Minutes of last meeting read and approved. No clinical cases reported.

Dr. R. W. Cochran read a paper on "The Relation of the Specialist to the General Practitioner."

The president appointed the following members to

act as a Committee on Red Cross Medical Work: Drs. Carl Henning, Vincent Shepherd, S. A. Whitsitt, president, C. W. Denny, vice president, F. C. Denny, secretary.

Adjourned.

F. C. DENNY, Secretary.

JENNINGS COUNTY

Meeting of February 28

The Jennings County Medical Society met in regular session February 28 at the Society's room in North Vernon, with ten members present. Minutes of last meeting read and approved.

Clinical cases were presented by Dr. Robertson of Deputy and Dr. Bannister of Paris Crossing. Dr. Green, North Vernon, presented a paper on "Fruit Juices as a Diet in Typhoid." General discussion, which was led by Dr. McAuliffe, followed.

A permanent program committee consisting of Drs. Bannister, McAuliffe and Green was appointed and a new plan of program discussed.

Adjourned.

JOHN H. GREEN, Secretary.

Meeting of March 26

The Jennings County Medical Society met in regular session at the Society's club room March 26. In the absence of President Bannister, Vice-President McAuliffe presided. Eight members were present.

Dr. Richardson reported a case of purpura terminating fatally in a woman.

Dr. Robertson reported a similar case in a boy aged 8 which terminated fatally.

Dr. Stemm reported a case of squamous epithelioma of the cervix with an involvement of the broad ligaments in a young woman aged 30.

Dr. McFarlin reported a case of double labor in a lady of extreme old age with good recovery.

Dr. Richardson presented a paper on "Quinin," which was followed by a general discussion.

Motion made and carried that Dr. Robertson present the paper from this Society before the District Meeting at Columbus.

Adjourned.

JOHN H. GREEN, Secretary.

DELAWARE COUNTY

Meeting of March 5

The regular meeting of the Delaware County Medical Society was held in the Public Library Friday, March 5, with President W. W. Wadsworth, M.D., presiding.

A communication embracing an invitation to unite with the Madison County Society in a joint meeting to be held at Anderson, April 22, was read by the secretary and an acceptance voted.

The Society acted favorably on a motion to hold a meeting at 8 p. m. on the third Friday of each month, such meetings to be devoted to business, clinical histories, local and current events pertaining to the interests of the physicians of our city and county, and other timely matters.

Our meeting for this day was one of the greatest in the history of the Society. Dr. Charles P. Emerson, Dean of the Indiana University, spoke to a large and appreciative audience composed of physicians from nearly all the surrounding towns. He used as his subject, "Medical Education." His splendid address might be divided into two parts; the first treating of

historical data, and the second a stirring presentation of the needs of our day and age.

Dr. Emerson began with the medical history of Europe at a time when America was still a vast wilderness. Then coming to this country, started with the founding of Harvard and traced medical progress down to the time when proprietary or private interest schools were started, first in Baltimore, then very quickly in hundreds of other more or less suitable locations, and turned out thousands of graduates who were but poorly equipped to cope with disease or any of the great foes the physician ought to be able to meet and vanquish. Competition between these colleges became so keen that any fellow with the price could gain entrance and get a diploma which, in that day, in many states, was equivalent to a license to practice. Medical schools run for profit are necessarily inadequate, for no school that turns out a qualified physician can be even self-sustaining. Successful universities must have endowments or state help.

The high entrance requirements to our medical schools at present are not proving a barrier to any young man "who has it in him" to succeed. It is not a matter of so many terms in a preparatory school; it is a matter of a good working knowledge of required facts. Medical education must have a foundation. There is no medical trust. All the medical profession demands is that any applicant to practice the healing art, in any way whatever, have a knowledge of what may confront him. Treatment constitutes but a small part of our medical curriculum. Treatment and the answer to a problem are somewhat similar. If one is able to properly solve the problem the answer takes care of itself. If the physician can understand all the equation constituting the ailment of the patient before him, the treatment becomes simple.

Dr. Emerson here referred to the medical department of the Indiana University: how its present rating and advanced standing are the result of exacting demands for better trained physicians. He told of a large group of students who are learning the value of an ability to comprehend the patient's surroundings, when necessary to study his physical condition.

Anyone can enter. A boy without any money can work his way through. If he does, he is probably composed of the stuff of which good and true physicians are made. The physician who loses touch with the philanthropic side of life becomes a dangerous element in the community. The sick and afflicted come to the physician for relief from their pain and troubles and the real practice of medicine does not consist in giving a bottle of medicine. The fact that seven out of every ten need something else than a bottle of medicine, and the physician failed to realize this, was the cause for the origin of the various cults, pathies, healers and recourse to the left hand foot of the graveyard rabbit. The physician ought to be a leader, one who can prompt a patient to lead a better life, one who can take into consideration a patient's habits, his home, his mother-in-law, his wayward son, his uncongenial work, his improperly cooked food, in fact his entire environment as well as his physical handicap. Dr. Emerson voiced his approval of legislation compelling the same care and precaution to be used to prevent the spread of venereal diseases as is necessary in small-pox. This sentiment was heartily endorsed by the audience.

The leader in discussion was Dr. W. A. Spurgeon, member of the State Board of Medical Examination

and Registration, who spoke of the increasing knowledge of medical matters on the part of the laity, and an enlightened public opinion.

Mrs. Elmer Whitely, a capable social and settlement worker, gave some interesting accounts of her work.

Rev. Daisy Barr, Rev. Stover, Dr. Fisher and others also made brief speeches.

The Society voted to invite Dr. D. C. Peyton of Jeffersonville to address a public meeting in Muncie, May 16, 1913.

Adjourned.

H. D. FAIR, Secretary.

Meeting of April 4

The regular meeting of the Delaware County Medical Society was held in the auditorium of the Public Library at Muncie, Friday afternoon, April 4. The president, W. W. Wadsworth, M.D., in the chair. The minutes of the previous meeting were read by the secretary and approved by the Society. A "sane Fourth" resolution was passed by the Society, favoring and urging the adoption of a municipal ordinance prohibiting the sale and use of all fireworks. This resolution was prompted by the fact that in four years, because of the establishment in certain cities of a "sane Fourth," the death-rate has been lowered from 5,307 in 1909 to 413 in 1912.

The program for the day consisted of a Heart and Lung Clinic, conducted by Dr. A. C. Kimberlin of Indianapolis. The meeting proved to be of intense interest. A business man, 54 years of age, was presented who showed a decidedly tuberculous environment. The mother died when the patient was 11 years old, of tuberculosis. Some years later, a brother, constant companion and bed-fellow died of the same disease. Five years ago, the wife died of pulmonary tuberculosis. Several years ago, the patient had pneumonia which, to use his own expression, "lasted nine weeks." About one year ago the patient noticed an increasing degree of lassitude which could always be thrown off with a little effort. His altered condition was evidently more noticeable to his children than to himself, for it was at their urging that he consulted a physician. The physical findings were not of great importance. He had lost no flesh, had no elevation of temperature, but a laboratory examination showed many tubercular bacilli in the sputum. Two weeks later another examination was positive, with many bacilli. A few days later, a sanitarium expert pronounced his trouble, unquestionably, tuberculosis. He then went to the Rockville Sanitarium, where the diagnosis was again confirmed. Remarkable as it may seem, at the end of seven weeks, and after five doses of tuberculin, he was sent home "cured"; but in spite of his "cure," he was given, by the sanatorium physician, a bottle of tuberculin with full instructions for self-medication. The patient followed this advice, secured a hypodermic outfit and has given himself several doses. He came before the Delaware County Medical Clinic for two reasons: first, to know whether he was really cured; and second, for advice as to his future conduct. Dr. Kimberlin went into the case thoroughly and concluded it was not safe to consider the man cured. The cure of tuberculosis is not a matter of seven weeks or seven months. True, the bacilli had disappeared from the sputum, but that cannot be taken as absolute evidence. Neither can this man hope for the best results from the so-called "home treatment" of tuberculosis. Outdoor life in a dry, rarefied atmosphere is best. This man would do

best to make his permanent home in such a climate as Texas, New Mexico or Colorado. In the course of the examination, Dr. Kimberlin brought out several very important points. A physician ought to be able to so thoroughly comprehend his patient's physical and clinical symptoms that he may be certain of his diagnosis, even though the laboratory findings may not concur, for mistakes may happen even in a well-equipped laboratory. The findings of tubercular bacilli in the sputum does not always mean pulmonary tuberculosis or vice versa. The average doctor is better than he really thinks. All possess a large store of latent knowledge seldom called into use. It is injurious to a doctor to feel that his neighbor is superior. Self-confidence is necessary. No man engaged in general practice has any place in experimental medicine. There are enough faddists in the profession to try out the new discoveries. Dr. Kimberlin also urged the importance of considering commonplace symptoms and conditions.

Another patient, 60 years old, was presented, with dilatation of the left heart, whose urine contained granular and hyaline casts, whose most prominent symptom until recently was an occasional nocturnal dyspnea. Lately, both speech and gait were somewhat impaired. Dietary and hygienic measures alone were advised.

Dr. Kimberlin had no difficulty in demonstrating his superior ability as a clinician and instructor.

Adjourned.

H. D. FAIR, Secretary.

KOSCIUSKO COUNTY

The Kosciusko County Medical Society met in regular session March 25, with Vice-President Thomas presiding. Eight members were present.

The regular program was not carried out. A motion was made by Dr. Howard to extend congratulations to Dr. Young of Milford on the occasion of his recently becoming a benedict. He was married Sunday, March 23, to Miss Jessie McDonald of Milford, Ind.

Case 1 presented by Dr. Yocum of Mentone. Patient, female aged 21. Rheumatism one year ago involving joints, and slight fever. Convalescent in a few weeks. Five months ago patient began to tire easily; emaciated; pulse 128, irregular; throbbing vessels; sleepless; distinct mitral bruit; dyspnea. Urine and lungs negative. Perspires easily on exercise. No exophthalmos or thyroid enlargement. Diagnosis—very probably an early exophthalmic goiter.

Case 2.—Dr. Howard of Warsaw reported a case in which he did a cataract operation. Blood-pressure 204 before operation. Twelve days after operation blood-pressure was 139. Patient was put on potassium iodid, 10 grains three times per day.

Case 3, presented by Dr. McDonald of Warsaw. Patient, male, aged 55. History of heavy drinker for years. Had a slight attack of paralysis; slightly delirious; convulsions every half hour for several hours. Patient was bled freely. No convulsions after bleeding. Rallied somewhat, but died several hours later. Albumin in urine. Diagnosis—chronic nephritis.

Case 4, presented by Dr. McDonald of Warsaw. Patient, male, aged 17. Took sick suddenly with pain in right chest over liver; temperature 105.5; no cough or expectoration; no dullness over chest. Temperature two days later, 103. Diagnosis deferred.

Adjourned.

G. W. ANGLIN, Secretary.

LAKE COUNTY

A regular meeting of the Lake County Medical Society was held in the Gary Public Library, March 13, 1913, at 8 p. m. There were seventeen members present. In the absence of President Weis, Dr. Evans of Gary was appointed to preside. The minutes of the February meeting and those of a special meeting held in Hammond, February 21, were read and approved.

The secretary read an application for membership from Dr. Leonard J. Ostrowski of Hammond. This was referred to the board of censors, Drs. Metcalfe and Laws acting as censors pro tem. On a favorable report by the censors, on motion the rules were suspended, and Dr. Ostrowski duly elected to membership.

Dr. Howat moved that the committee on finance for the November, 1912, meeting of the Tenth Councilor District, held in Hammond, be requested to present a report at the April meeting of the Lake County Medical Society. The motion was carried.

Dr. Hosmer brought up the question of advertising and contract practice. He quoted the rules of the Gary Medical Society on these questions. Dr. Metcalfe, supported by Dr. Howat, moved that the secretary be instructed to notify the members of this Society that the placing of professional cards in hotels, theater programs, church programs, and all publications other than those regularly recognized by the U. S. postal regulations, is unethical; and it is recommended that members failing to cause same to be removed within one month from the date of this notice, be dropped from the rolls of this Society. The motion was carried.

Dr. O. O. Melton then read a paper on "Conservative Surgery." He quoted Ferguson, Parham, Coe, Howat and Richardson, as showing the trend of professional opinion as to what constitutes conservative surgery. The conquests of surgery have been more limited in malignant growths than in any other field. Out of the mass of clinical, pathologic and experimental material, the following facts have been gleaned:

1. That such growths are, in their beginning, always local; consequently at this stage are curable by thorough removal.

2. That they spread by contiguity, blood and lymph stream metastasis; rapidly becoming incurable by reason of their inaccessibility.

The writer believes that the larger burden of cancer rests with the diagnostician. If tumors of the breast come to radical operation before perceptible enlargement of the axillary lymphatics, 80 per cent. can be expected to remain well.

Next to malignancy, probably the darkest chapter in the history of surgery is that of intestinal obstruction, the mortality being variously estimated from 65 to 85 per cent. The greater part of this represents the mortality of delay.

The conservative management of appendicitis has received much attention in recent years. The early dictum, to operate immediately the diagnosis is made, has been shown to be fallacious, since the diagnosis is not always made at a time favorable for operation. Drainage, with as little damage as possible, in the management of certain pus cases, has reduced the mortality from 80 or 90 per cent. to 1 or 2 per cent.

The only possible conclusion is that conservatism in appendicitis consists in the removal of the appendix at a time when the disease is limited thereto, and which permits the efficient closure of the abdominal wall without drainage.

Discussion. Dr. Howat: The arrangement and dictation of this paper are good. In my opinion, the whole thing depends on the definition we give the word "conservative." Some "conservatism" is rank "toryism." All surgery should be conservative, though, of course, radical measures are sometimes necessary. In appendicitis, the difficulty has always been that there is no clinical evidence to point to certain pathologic changes. The old rule, to operate within the first twenty-four hours or keep hands off has been disproven. The speaker has operated within six hours after onset, and found a gangrenous appendix. Believes there has been a wholesale slaughter of appendices. Prolonged anesthesia is bad for the patient. Has often waited until the attack subsides before operating. Case report: Young man, intense pain in right iliac region coming on suddenly at night; temperature 99.2; pain and tenderness severe; slight cough, though no physical signs in the chest. The next day the pain was about the same; slight crepitation in the lower lobe of right lung. In the afternoon was able to mark out dulness in this lobe. Rusty sputum appeared and the case proved to be a typical pneumonia. Resolution was delayed, during which time the pain in the right iliac region persisted.

Hosmer: Congratulated the essayist on his admirable presentation. Gave his experience in the management of appendicitis while an intern in one of the Philadelphia hospitals some few years ago; at which time the custom was to operate these cases at once. A few months ago he visited the same institution and found they had adopted the more conservative measures.

H. J. Laws then read a paper on "The Diagnosis and Treatment of Pleurisy." The essayist went into the early history of pleurisy and thoracentesis. In the matter of etiology, he discussed the questions of age, sex, occupation and seasons, together with the bacteriology of the question. The essayist chose to discuss the following forms of pleurisy; fibrinous or plastic, serofibrinous and purulent.

Treatment. The immediate indication is the relief of pain. Patient kept warm, and rest in bed. Leeching, blistering and repeated hot stupes should be used. Strapping of the chest often of service. Gives calomel, followed by salines. Thoracentesis, its dangers. Syncope, rupture of lung, converting serous into purulent effusion.

Empyema. Complete drainage the only treatment.

Discussion. Dr. Scull: Reported two cases of empyema in children in which the condition had persisted for five and two and a half years, respectively. Forced feeding and the open air treatment brought about a cure in five or six months. Good drainage had been obtained at the time of operation through the resecting of a rib.

The program was announced for the April meeting as being entirely clinical.

Adjourned. E. M. SHANKLIN, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session March 27, at Plymouth, in the City Hall. Six members were present.

Drs. Preston, Loring and Eley were appointed members of the Committee on Red Cross Medical Work.

Dr. Holtzendorff read a paper on "Anesthesia." Dr. Preston read a paper on "Tonsillitis." Both papers were good ones and the members showed their appreciation by thoroughly discussing them.

Adjourned. A. A. THOMPSON, Secretary.

SULLIVAN COUNTY

The Sullivan County Medical Society met in special session March 5 at 8 p. m. in the City Hall, Sullivan, with eleven members present and President J. H. Neff in the chair. Minutes of the previous meeting were read and approved.

Dr. E. E. Robards presented a paper on "Keratitis," emphasizing the diagnosis and treatment. He reported a number of cases with their history. Discussion led by Dr. J. M. Billman.

President Neff then announced that the rest of the meeting would be devoted to considering matters pertaining to the welfare of the Society and its members. He read messages from State Secretary Combs and Dr. G. W. Pirtle regretting their inability to be present for their part of the program.

The secretary then reported the publication of the *Annual Bulletin* of the Society, which he had mailed to some five hundred physicians throughout the country. A number of letters were read which had been received in comment on this publication.

The secretary then gave a review of the medical news and some of the more important points covered by the medical journals for January and February. This was followed by a general discussion of these matters, some of the things covered being the bills before our state legislature affecting the physician, drugs refused by the Council on Pharmacy and Chemistry, Friedmann's tuberculosis cure, Phylacogens, typhoid vaccine, medical advertising, etc.

Following this discussion the following resolutions were offered and passed:

Resolved, That the members of the Sullivan County Medical Society shall abide by and support the Council on Pharmacy and Chemistry of the American Medical Association to the extent that we shall not use any drug which is denied admission to the "New and Non-official Remedies" list. Furthermore, to this end the secretary of this Society shall prepare a list of all remedies which are denied admission to the "New and Nonofficial Remedies" during the time elapsing between the meetings of our Society, and that he shall report this list to this Society at the next following meeting.

Resolved, That it is the feeling of the Sullivan County Medical Society that there is and has been an attempt on the part of some of the drug houses, supplying the physicians, to exploit us;

Wherefore, it is directed that the president of this Society appoint a committee of two to inquire into the conditions of the drug supply trade in this county and that this committee make a report to this Society of said conditions, together with such recommendations as they may deem proper.

Resolved, That the members of the Sullivan County Medical Society shall, to the best of their ability, strive to keep their names from appearing in any newspaper of this county in connection with any case of sickness or accident. And, further, that they shall to the best of their ability endeavor to keep their names from appearing in any newspaper in any such way as to exploit themselves before the public, the usual ethical professional cards are exempt from this resolution, although it is strongly urged that even this be dispensed with.

Resolved, That, whereas, under the present method of procedure it is necessary for a patient to go to Indianapolis to receive free treatment for hydrophobia;

And, whereas, this puts the patient to much unnecessary expense and trouble;

And, whereas, it is left to the decision of the secretary of the State Board of Health as to who shall administer this treatment and as to where it shall be given;

And, whereas, we feel that the local profession is competent to administer this treatment;

Therefore, we wish to protest against this method of procedure and to suggest that the treatments be sent to the family physician of the patient, and in case this physician does not wish to administer this treatment that it shall be sent to the proper local health officer and that he shall administer the same.

Therefore, further, be it ordered, that the secretary of this Society shall send copies of this resolution to the secretary of the State Board of Health and to the secretaries of the other County Medical Societies of this state urging that action along this line be taken.

It was moved and seconded that no member of the Sullivan County Medical Society shall enter into any contract wherein the prices paid for services are lower than the regular fees current in this county.

After considerable discussion, this motion was tabled until the next regular meeting, and the secretary was instructed to mail a copy of this motion to each member for his consideration.

The Society then adjourned to meet in social session with the Sullivan physicians.

JAMES B. MAPLE, Secretary.

WASHINGTON COUNTY

The Washington County Medical Society met March 5 at the Carnegie Library with twelve members present.

This Society was organized last October and since that time it has met regularly, with a good attendance at each meeting. Each month there is a paper presented, followed by a general discussion. Interesting cases are then presented by those present, which are discussed with a frankness that has proven of much benefit to the members.

This month, Dr. R. J. Wilson read a paper on "La grippe" which showed by its thoroughness in covering the subject that the doctor had spent many hours in its preparation and was evidently trying to set a standard for the future work of our members. The discussion following was lively and interesting, showing that Washington county, though young in experience, was determined to be excelled by none.

An air of pessimism pervaded our first meetings as to the life of the Society, but the secretary is striving by personal appeals each month to the physicians of the county to be present, and optimism as to its future has taken a firm hold, and it is now asserted that this Society is determined to be a standard for those of our neighboring counties.

Adjourned. CLAUDE B. PAYNTER, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines"

appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

MENINGOCOCCUS VACCINE contains in each c.c. about 1,000 million killed meningococci. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

STAPHYLOCOCCUS PYOGENES AUREUS VACCINE is marketed in two strengths: 1. Containing in each c.c. about 300 million *Staphylococcus pyogenes aureus*. 2. Containing in each c.c. about 600 million *Staphylococcus pyogenes aureus*. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

STAPHYLOCOCCUS PYOGENES ALBUS AND AUREUS VACCINE contains in 1 c.c. *Staphylococcus pyogenes albus* and *aureus* each 600 million. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 660).

PNEUMOCOCCUS VACCINE is marketed in two forms: 1. Each c.c. contains 40 million killed pneumococci. 2. Each c.c. contains about 100 million killed pneumococci. G. H. Sherman, Detroit, Mich. (*Jour. A. M. A.*, March 1, 1913, p. 665).

REFORM IN MEDICINES

"CLINICAL REPORTS."—The sheafs of uncritical "clinical reports" which exploiters of utterly worthless "ethical" proprietaries have furnished in support of the medicinal virtues of their nostrums show that the "after this, therefore because of this" style of reasoning is not confined to the laity in the judgment of medicines but is also applied by many physicians. Many doctors who, in standing up for their pet proprietary, take the attitude, so ably described by George Eliot, of those persons who are distrustful of scientific methods. They will grudgingly admit that while, as a general thing, two sides of a triangle are together greater than the third side, yet after all we must be careful, as it is easy to carry mathematical reasoning too far (*Jour. A. M. A.*, March 1, 1913, p. 674).

PA-PAY-ANS (BELL).—Bell & Co. (Inc.) are trying to boost a preparation of theirs, Pa-pay-ans (Bell), advertised to be a "sure-cure" for acute indigestion. This is a mixture consisting essentially of sodium bicarbonate, charcoal and ginger, sweetened with saccharin and flavored with oil of wintergreen. They publish testimonials from physicians—not giving the names—and when asked for names they replied: ". . . in fairness to the men who write us we must withhold their names. No one of any standing in the profession would allow us to publish his name. . . ." Bell & Co. are closely associated with the L. D. Johns Co., a pseudomedical concern that obtains its capital by selling stock to physicians who are not above going into that kind of business (*Jour. A. M. A.*, March 1, 1913, p. 682).

THE UNITED DOCTORS.—Advertising quacks constitute a menace almost equal to that of the "patent-medicine" fakery. By their unscrupulous methods and fake schemes people are led to patronize these quacks, to the detriment of their health. The "United Doctors" is an organization of this kind, practically owned and controlled by one man. Offices are established in large towns and are operated until the public is milked dry. Their scheme is to advertise a "wonderful" system of treatment by which they claim to cure any disease from eczema to paralysis. Newspapers should be censured for accepting advertising matter

of this kind, for when the newspapers no longer carry such fakes, concerns like the "United Doctors" will be forced out of business (*Jour. A. M. A.*, March 1, 1913, p. 682).

NO MEETING.—The secretary of the Westmoreland County Medical Society states that the society has held no meeting at which Phylacogens were discussed as has been asserted in the Special Phylacogen Number of *Therapeutic Notes*, published by Parke, Davis & Co. (*Jour. A. M. A.*, March 1, 1913, p. 688).

THE FALLACY OF HYPOPHOSPHITES.—Hypophosphites have been recommended especially in pulmonary tuberculosis with the belief that the phosphorus was of special value in this disease, and that the hypophosphite was the best form in which to administer phosphorus. There is no evidence to show that hypophosphites are utilized by the system, but instead it appears that they are excreted unchanged. While thus the hypophosphites do not furnish phosphorus to the body it is possible that they might have some direct action of their own on the course of the disease, but the clinical evidence for this is very slight. Altogether the hypophosphites with their many unscientific combinations described in the Pharmacopeia and the National Formulary could well be eliminated from our materia medica (*Jour. A. M. A.*, March 8, 1913, p. 747).

ANTIMERISTEM-SCHMIDT.—Antimeristem-Schmidt is a preparation claimed to be useful in the treatment of inoperable cancer and as a supplementary treatment after operation for cancer. The treatment is founded on the theory advanced by Dr. O. Schmidt that the cause of cancer is found in a fungus, *Mucor racemosus*, which, Schmidt at first asserted, carried a protozoon which he regarded as the real cause of the disease. The "serum" or rather the vaccine, is prepared from cultures from this fungus. While Schmidt claims that he has been able to produce cancer by means of the organism, scientific research has not verified his claims. Extensive clinical trials have shown the treatment to be without effect (*Jour. A. M. A.*, March 8, 1913, p. 766).

PERTUSSIN.—Pertussin is a proprietary whooping-cough remedy manufactured by the Kommandanten Apotheke, Berlin. A physician's sample of this preparation sent out by Lehn & Fink bears a label on which appears the following: "100 parts Pertussin contains: ½ Ol. Thymi, et Thymol, 21½ Ext. Thymi 'Taeschner', 50 Saccharum, 2 Glycerinum, 6¼ Alcohol, 19¾ Aqua Destillata." Pertussin belongs to that class of vegetable preparations which, since they contain no distinctive principle, are difficult of analysis—particularly as concerns the "joker" in the formula, in this case "Ol. Thymi, et Thymol" and "Ext. Thymi 'Taeschner'"—hence there has been much dispute as to the composition of this nostrum. In general, it appears that whatever virtues it has are due to some preparation of common thyme (*Jour. A. M. A.*, March 8, 1913, p. 766).

PASADYNE.—According to the manufacturer Pasadyne is a tincture of passion-flower. Formerly this nostrum was sold under the title "Daniel's Concentrated Tincture of Passiflora Incarnata." While the manufacturer claims marvelous virtues for the preparation, passiflora (passion-flower) is now generally recognized as being of little if any value. The Council on Pharmacy and Chemistry has refused recognition both to the drug passion-flower and to the proprietary preparation of Daniel—the first because its value has not been established and the second because of extravagant and unwarranted therapeutic claims (*Jour. A. M. A.*, March 8, 1913, p. 766).

BIOSOL.—H. Hille, once of Heidelberg, now of Oak Park, Ill., has reached the conclusion that mineral starvation is the cause of all diseases. He claims to have found a remedy and calls it Biosol. Biosol is an indescribable mixture of alcohol, carbohydrates, and

various mineral bodies—ranging all the way from sodium, potassium, calcium and magnesium to silicon, copper, uranium and thorium. It is said to be a valuable food as well as medicine. A dose of this food might keep a rabbit alive for several hours, and a man who could stand the expense and escape death from delirium tremens might live on three quarts of the mixture per day. Fortunately human beings have little occasion to fear mineral starvation and may obviate whatever danger there may be by a drink of milk (*Jour. A. M. A.*, March 8, 1913, p. 767).

LLOYD'S SPECIFIC MEDICINES.—While some of the products of Lloyd Bros. appear to be proprietary medicines of secret composition, in the main they are the so-called "specific medicines" or "specific tinctures." In general, it is understood that these preparations belong to that class of obsolete pharmaceuticals known as "green tinctures," which at one time were believed to possess great virtues because they were made from the fresh, undried drug. The use of so-called "green tinctures" has been a fad and has never been put on a scientific basis. In an examination of digitalis preparations by Edmunds and Hale, Lloyd's "Specific Medicine, Digitalis" was found to be one of the weakest of all the various preparations examined, although it was claimed to be twice as active as ordinary fluid-extracts (*Jour. A. M. A.*, March 15, 1913, p. 848).

IOSALINE.—Iosaline is advertised as a remedy for the treatment, by external application, of rheumatism, gout, neuralgia, pneumonia and numerous other diseases. The following claims are made: "Iosaline is a penetrator and overcomes the objectionable escharotic properties of iodine; it is readily absorbed and may be used without discomfort or discoloration." As there are few iodine compounds which are "readily absorbed" through the skin and which will not at the same time produce discoloration or discomfort, the product was examined in the A. M. A. Chemical Laboratory. The examination indicated the composition to be, approximately: Alcohol (by weight) 48.05 per cent., menthol 2.07 per cent., methyl salicylate 10.25 per cent., potassium iodide 5.55 per cent., soap 12.68 per cent., glycerin a trace, water and undetermined matter to make 100 per cent. Physiologic tests showed that the iodine was not absorbed by the skin. The laboratory findings having been reported to the Council on Pharmacy and Chemistry, this body voted that, because of the unwarranted and misleading claims, Iosaline be refused recognition (*Jour. A. M. A.*, March 15, 1913, p. 848).

GLUTEN FLOUR.—There exists in the mind of the public and even of many physicians the dangerous misconception that so-called "gluten flours" or "diabetic foods" are essentially free from starch. This danger has been increased by the Food and Drugs Act for, while there is a natural belief that the law should protect the public, the government standard for gluten flour makes no requirement regarding the starch content, which is the item of importance from the standpoint of the diabetic. The government regulations merely prescribe that it shall contain at least 35 per cent. protein. The great majority of so-called gluten flours and gluten foods sold in this country contain dangerously high percentages of carbohydrates. The manufacturers do their best to keep both physician and patient in ignorance of this fact. Accepting the exploiters' own figures—given grudgingly—the preparations on the American market contain the following amounts of carbohydrates: Brusson Gluten Bread 49.77 per cent., Farwell & Rhines Gluten Flour 46.05 per cent., Heintz Gluten (Glutin) Biscuit 51.64 per cent., Jireh Diabetic Biscuit 64.52 per cent., Jireh Flour 58.59 per cent., Jireh Bread 39.12 per cent., Bond Gluten Diabetic Flour 50 per cent., Pieser-Livingston Gluten Flour 44.30 per cent., Hoyt's Gum Gluten products 40.63 per cent. to 48.20 per cent., and Wilson Bros.' Gluten Flour 64.10 per cent. (*Jour. A. M. A.*, March 22, 1913, p. 922).

BOOK REVIEWS

A MANUAL OF AUSCULTATION AND PERCUSSION. Embracing the Physical Diagnosis of Diseases of the Lungs and Heart, and of Thoracic Aneurysm, and of other parts. By Austin Flint, M.D., LL.D. late Professor of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc., New York. Revised by Haven Emerson, A.M., M.D., Associate in Physiology and in Medicine, College of Physicians and Surgeons, Columbia University, New York. 12mo, 361 pages, illustrated. Cloth, \$2.00, net. Lea & Febiger, Philadelphia and New York, 1912.

In this, the sixth edition of Flint's little work on Physical Diagnosis, we find the same distinct and careful preciseness, simplicity, directness and exactness. By virtue of its simplicity and compactness the little work occupies a distinctive place as a manual, authoritative in nature, of all questions of physical diagnosis.

In this edition Dr. Emerson has given space to two additional chapters, on the examination of the abdominal viscera and the nervous system. The excuse for this is the need for just such careful examination of the nervous system, as well as the abdomen, in every complete physical examination, as is made of the heart and lungs.

In reviewing this work one is struck by the ingenuity, and what must have been the masterful force in an examination at the hand of the author of this invaluable little work.

Unfortunately an occasional typographical error presents, as the elision of a letter in "anatomy," line 1, p. 21.

THE PRACTICE OF GYNECOLOGY. A Text-Book on the Practice of Gynecology for Practitioners and Students. By W. Easterly Ashton, M.D., LL.D., Professor of Gynecology in the Medico-Chirurgical College of Philadelphia. Fifth edition, thoroughly revised. Octavo of 1,100 pages, with 1,050 original line drawings. Philadelphia and London, W. B. Saunders Company, 1912. Cloth, \$6.00 net; Half Morocco, \$8.00 net.

The appearance of the fifth edition of Dr. Ashton's splendid work on gynecology within a period of seven years is in itself pretty good evidence of the popularity and success encountered by it. The new edition is marked by the same effort at completeness that is characterized in the previous ones, and the author certainly has fulfilled his aim in leaving nothing to be taken for granted. More than any other, it is perhaps this evidence that renders the book of such value to the general practitioner.

Many new illustrations find place in this edition and several changes are made as to etiology, pathology and treatment. Several new operations are described, some old ones are omitted and careful attention is given to preparatory and postoperative treatments. A brief but satisfactory résumé of the blood in relation to surgery is now offered.

Not a little space is given to the various purposes for which the x-ray finds place in gynecology, attention being called among other things to its beneficial effect in obstinate menorrhagia and metrorrhagia.

More attention is given to the palliative treatment of inoperable malignant diseases of the pelvic organs, the use of the x-ray, especially in cancer of the cervix and Coley's fluid in sarcomatous growths being given frequent favorable mention.

Some little attention is given to the more recent treatment of specific disease based on Ehrlich's discovery. Mention is made of McGlinn's observations refuting the theory of myocardial degeneration in cases of fibroid tumors of the uterus.

All these and many other changes and additions go toward making this edition of Dr. Ashton's work entitled to a higher place, if possible, in the field of gynecologic bibliography, indeed marking it as one of the leading texts in this field of work. We know of no work of reference in the whole field of gynecology which affords quite the same amount of satisfaction as does this one.

PRINCIPLES OF HYGIENE. For Students, Physicians and Health Officers. By D. H. Bergey, M.D., First Assistant, Laboratory of Hygiene, and Assistant Professor of Bacteriology, University of Pennsylvania. Fourth edition, thoroughly revised. Octavo of 529 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$3 net.

The appearance of the fourth edition of this very excellent work on hygiene marks the effort of the author to keep his readers well abreast of the times regarding the subjects treated. Although but three years have elapsed since the last edition was published, yet the progress in such objects as hygiene, water and sewerage purification and immunity, makes necessary frequent and thorough revisions of these subjects. The work is particularly interesting because of the numerous bibliographic references which are well abstracted in the text. Not only does such feature lend itself to the interest of the work, but renders it extremely valuable for reference purposes.

The mechanical work of the volume is in keeping with the usual standard of its publishers.

MEDICAL MEN AND THE LAW. A Modern Treatise on the Legal Rights, Duties and Liabilities of Physicians and Surgeons. By Hugh Emmett Culbertson, Esq., member of the Ohio and New York Bars, etc. Octavo, 325 pages. Cloth, \$3.00, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

As the title indicates, this book deals with every phase of the law with which medical men are likely to be interested in any way whatsoever. It deals with the legal rights, duties and liabilities of physicians and surgeons, and its scope is so comprehensive that there is scarcely any legal question of interest to physicians which may not be found discussed in this interesting book. The work is based upon court decisions and authoritative legal practice, and the scope of the work is indicated by the following subjects which are taken up in the twelve chapters: 1. Introductory; 2. Definitions; 3. Who may practice medicine and surgery; 4. Relation of physician to patient; 5. Compensation; 6. Malpractice or negligence; 7. Criminal liability of physicians and surgeons; 8. Exemptions to physicians and surgeons; 9. Physicians and surgeons as witnesses; 10. Right to protect professional reputation; 11. Validity of contract restricting exercise of profession; 12. Wills.

The author seems to have shown conclusively, as stated in the introductory, that medical practitioners should have some general knowledge of the law, without which they cannot in any sense of life discharge properly their duty either to the public or to themselves.

The work will prove serviceable not only to physicians, surgeons and dentists, but to the legal profession as well.

PATHOLOGICAL TECHNIQUE. Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. Mallory, M.D., Associate Professor of Pathology, Harvard Medical School, and J. H. Wright, M.D., Director of the Pathological Laboratory, Massachusetts General Hospital. Fifth revised edition. Octavo of 507 pages. Illustrated. Philadelphia and London: W. B. Saunders Company. Cloth, \$3.00.

This book is invaluable to any one who has more or less opportunity to do general pathologic work. It is a guide to beginners, and a source of reference for the advanced. It considers the various methods employed in clinical bacteriology and pathology, and includes the methods which the authors believe to be the simplest and most practical. The value of the work is attested by the fact that several editions have been printed to supply the demand, and in this last, the fifth edition, many of the chapters have been rewritten, some obsolete matter has been eliminated, and the latest and most approved ideas incorporated.

Among the more important revisions are those concerning the general methods of fixation and staining, the bacteriological diagnosis of serum diseases, notably Asiatic cholera, the methods for the examination of the blood, including the preparation and use of Wright's blood stain; and a greatly improved method for the staining of the blood-platelets and giant-cells of the bone-marrow.

Among the new matter and methods added are the following: W. H. Smith's method for staining the encapsulated bacteria; the antiformin method for the detection and cultivation of the tubercle bacillus; Musgrave's and Clegg's method for the cultivation of amebae; Wright's method for staining the myelin sheaths of nerves in frozen section; a new method for counting the blood-platelets for clinical purposes; Ghoreyeb's method for staining the treponemata (spirochetes); Alzheimer's method for the cytologic examination of the cerebrospinal fluid; Giemsa's new method for staining protozoa and bacteria in sections; Schridde's modification of Altmann's method for staining cytoplasmic granules; and directions for performing the Wassermann and Noguchi serum tests for syphilis.

SOLIDIFIED CARBON-DIOXID. By Ralph Berstein, M.D., Clinical Instructor in Skin Diseases, Hahnemann Medical College, Philadelphia, Pa. 95 pages. cloth, \$1.00. Frank S. Betz Co., Hammond, Ind., 1913.

This little book gives the experience of the author in the treatment of cutaneous neoplasms, both benign and malignant, with solidified carbon-dioxid.

Carbon-dioxid, well known as carbonic acid gas, is easily obtainable in commerce, and is the substance with which soda water tanks are charged in order to carbonate their contents. Its ability to solidify is due to the fact that when it is allowed to escape from its container its sudden release from pressure causes intense and sudden expansion with rapid evaporation.

Solidified carbon-dioxid has the appearance of snow, and in its solidified state it will remain for at least several hours, and if preserved in a vacuum bottle, will last for many more hours.

The results to be obtained in the use of this freezing substance depend on two factors—the duration of the freezing and the amount of pressure exerted, and the author discusses in detail those phases of the subject. He claims remarkable results and superiority

to other methods of procedure, and in the successful treatment of a large variety of skin diseases he mentions particularly angioma, epithelioma and lupus erythematosus. Full directions are given for employing the treatment, and illustrative case histories are given. A few photographs of lesions before and after treatment are reproduced.

Withal the book is instructive, and if results are all that are claimed we have in solidified carbon-dioxid a remedy that surpasses any other in its efficacy as treatment of a variety of cutaneous lesions.

SKIN GRAFTING FOR SURGEONS AND GENERAL PRACTITIONERS. By Leonard Freeman, B.S., M.A., M.D., Professor of Surgery in the Medical Department of the University of Colorado, Denver. With 24 illustrations, cloth, 140 pages, \$1.50. C. V. Mosby Co., St. Louis, 1913.

This is an excellent little work giving detailed and comprehensive information concerning all of the phases of skin grafting. The author describes all the various methods, including those of Thiersch, Wolfe, and Hirschberg, and gives a brief comparison of the different methods, and suggestions concerning their employment.

The book will prove a valuable addition to the library of any physician who desires to have up-to-date information on the subject of skin grafting.

DISEASES OF THE STOMACH, INTESTINES AND PANCREAS. By Robert Coleman Kemp, M.D., Professor of Gastro-Intestinal Diseases, New York School of Clinical Medicine. Second edition, revised and enlarged. Octavo of 1021 pages, with 388 illustrations. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$6.50 net; half morocco, \$8.00 net.

The appearance of this, the second edition of Dr. Kemp's most excellent work, marks an effort on the part of the author to avail himself both of the criticisms of the first edition and the opportunity to incorporate so much that is new in this field of work. The subject of duodenal ulcer alone is probably as yet not a closed chapter, and any work on diseases of the stomach and intestines must needs have frequent revision to keep pace with the progress along this particular line.

The author takes a very creditable stand on the subject of early surgical intervention in pyloric stenosis of any variety whatsoever. Like most of the best authors of to-day, he believes that such surgical exploration is probably the best route to the early diagnosis of cancer of the stomach.

It is rather refreshing to note in the chapter on typhoid fever that the author adopts a decidedly more moderate dietary than many of the recent high calorie enthusiasts. Personally we are inclined to believe that the normal measure of metabolism cannot be utilized as a standard of diet in a process which makes such inroads as typhoid does on the body nutrition. For this reason we have always held that it was a mistake to attempt to force to the extreme limit the impaired digestive functions of the typhoid patient.

An interesting chapter on diverticulitis finds place, and the last 100 pages are devoted to a very creditable consideration of the diseases of the pancreas.

All told, the work is interesting and valuable both for the information derived from the author's own experience and that so freely drawn from the literature by him. Unfortunately, there are places wherein the diction and grammar are rather clumsy, not a few instances occurring wherein sentences remain unfin-

ished. While this does not detract from the value of the data contained in the book, yet they do not add to its readability.

PROGRESSIVE MEDICINE. A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., assisted by Leighton F. Appleman, M.D. March 1, 1913. Philadelphia and New York: Lea & Febiger. \$6.00 per annum.

Perhaps the most interesting section of this number of *Progressive Medicine* is that of Frazier's on surgery of the head, neck and thorax, and particularly so is the very excellent résumé on the hypophysis. The surgery of the thorax is also interestingly reviewed. In Rührh's section on infectious diseases, the present status of the transmission of contagion is given some little space. While the author indicates the present trend of thought in concluding that while transmission of contagion by the air and by fomites is possible, it has perhaps in the past been exaggerated at the expense of more important details such as the detection of mild-case carriers.

Some little space is given to the interesting subject of septic sore throat, and considerable attention is paid to vaccination in typhoid fever, both therapeutically and as a diagnostic measure. The vaccine treatment of whooping-cough does not receive the attention that its present value seems to indicate.

Crandall's section on diseases of children is taken up largely with a consideration of prophylaxis, development and nutritional disturbances.

The most striking feature of Wood's section on rhinology and laryngology is the beautifully illustrated and rather technical description of Hayne's operation of draining the eisterna magna for the surgical treatment of meningitis. As yet the operation has been practiced entirely too infrequently to warrant definite conclusions as to its real therapeutic value, although theoretically it may be beautiful.

THE PRACTICAL MEDICINE SERIES, comprising ten volumes on the Year's Progress in Medicine and Surgery. Under the general editorial charge of Gustavus P. Head, M.D., and Charles L. Mix, A.M., M.D.

Volume V. **OBSTETRICS.** Edited by Joseph B. De Lee, A.M., M.D., Professor of Obstetrics Northwestern University Medical School, with the collaboration of Herbert M. Stowe, M.D. Series 1912, The Year Book Publishers, 180 N. Dearborn Street, Chicago. Pages, 229. Cloth, price \$1.25.

Volume VI. **GENERAL MEDICINE.** Edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A. M., M.D. Series 1912. The Year Book Publishers, 180 N. Dearborn Street, Chicago. Pages, 350. Cloth, price \$1.25.

The general subject of obstetrics is well covered by De Lee in Volume V, and is characterized by the results of his extensive experience in this field of work. He does not hesitate to condemn the Momburg bandage in the routine treatment of postpartum hemorrhage, and advocates the Stroganoff method of treating eclampsia, combining it with a primary venesection of at least 500 c.c. of blood.

In Volume VI the year's progress in general medicine is rather satisfactorily covered by Billings and Salisbury. We run across the usual quarrel between the internist and the surgeon in the treatment of gastric

ulcer. Billings even goes so far as to declare that gastro-enterostomy for a simple ulcer of the stomach is inexcusable.

NUTRITIONAL PHYSIOLOGY. By Percy G. Stiles, Assistant Professor of Physiology in Simmons College; Instructor in Physiology and Personal Hygiene in the Massachusetts Institute of Technology, Boston. 12mo of 271 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$1.25 net.

For a simple work on the subject of nutritional physiology, the little volume of Stiles' covers an enormous amount of ground. It is assumed, of course, that its perusal has been or will be supplemented by outside reading on general subjects, as biology, anatomy, food chemistry and dietetics.

The work is based upon the consideration of the various forms of energy, and is well dedicated to that master in the study of nutrition, Graham Lusk.

THE PRACTITIONER'S VISITING LIST FOR 1913. An invaluable pocket-sized book containing memoranda and data important for every physician, and ruled blanks for recording every detail for practice. The Weekly, Monthly and 30-Patient Perpetual contains 32 pages of data and 160 pages of classified blanks. The 60-Patient Perpetual consists of 256 pages of blanks alone. Each in one wallet-shaped book, bound in flexible leather, with flap and pocket, pencil with rubber, and calendar for two years. Price by mail, postpaid, to any address, \$1.25. Thumb-letter index, 25 cents extra. Descriptive circular showing the several styles sent on request. Lea & Febiger, Publishers, Philadelphia and New York.

The 1913 edition of this practical little volume has been thoroughly revised and includes a scheme of dentition; tables of weights and measures and comparative scales; instructions for examining the urine; diagnostic tables of eruptive fevers; incompatibles, poisons and antidotes; directions for effecting artificial respiration; extensive tables of doses; an alphabetical table of diseases and their remedies, and directions for ligation of arteries. The record portion is admirably arranged for taking care of the details of practice of the busiest physician. Altogether the work is handy and nicely gotten up.

A TREATISE ON FRACTURES AND DISLOCATIONS. By Lewis A. Stimson, B.A., M.D., LL.D., Professor of Surgery in Cornell University Medical College, New York. New (7th) edition, thoroughly revised. Octavo 930 pages, with 459 engravings and 39 plates. Cloth, \$5.00 net. Lea & Febiger, Publishers, Philadelphia and New York, 1912.

The appearance of the new seventh edition of this popular work on fractures and dislocations, within so short a time after the last previous one, is an evidence of the desire of the author to keep his work well abreast of the times. Most of the changes of this edition consist of additions to the subject of treatment, especially of old dislocations and the now-popular operative treatment of recent fractures. New sections have appeared on certain fractures of small bones in the hand and foot, and of the external tuberosity of the femur. More than one hundred new illustrations from photographs and skiagrams are added. The profusion of excellent skiagrams finding place in this work would lead one to believe that the author is placing more and more reliance on the x-ray findings in following through his fracture cases. A little surprise is experienced to find in the discus-

sion of the treatment of Colles' fracture a statement made that *occasionally* an anesthetic must be given. It is the reviewer's opinion that the sooner we come to a realization of the necessity for complete muscular relaxation in the treatment of fractures and proper checking up of our results by subsequent skiagrams, the more nearly perfect will our results become in this difficult field of work. It is just these details that mark the difference between the careful and the average surgeon.

All told, Stimson's work in this edition gives promise of maintaining the same popularity that it has enjoyed ever since the first edition appeared.

PSYCHANALYSIS: ITS THEORIES AND PRACTICAL APPLICATION. By A. A. Brill, Ph.B., M.D., Chief of the Neurological Department of the Bronx Hospital and Dispensary; Clinical Assistant in Psychiatry and Neurology at Columbia University Medical School. Octavo of 337 pages. Philadelphia and London: W. B. Saunders Company, 1912. Cloth, \$3.00 net.

When a decided departure from an established medical theory is advocated it should be seriously considered and the words of Burke—"Gentlemen, conceive it possible that you are mistaken"—borne in mind.

No recent addition to medical literature has caused such a storm of discussion as Freud's Sexual Theory. Much of this controversy has arisen because some of the critics of the theory did not have a proper conception of Freud's idea of sexuality.

Dr. Brill in this work gives a clear outline of the more important observations of the child's psychology on which this theory is based, and traces many of the mental processes of the adult back to childhood. The practical result of this theory has been the development of psychanalysis.

The author first discusses the development of Freud's conception of the psychoneuroses and psychoses, their relation to the psychology of dreams, sex, and the psychology of every-day life. The technic of the interpretation of dreams is fully explained and the relation they bear to the various forms of neuroses, psychoses and paranoia and hysteria. The practical application of psychanalysis together with its underlying principles are clearly given. A number of illustrative cases are analyzed in sufficient detail to make the text particularly lucid. The book ends with a chapter on Freud's theory of wit.

To one who is interested in mental diseases and unable to read German this work of Dr. Brill's will be particularly valuable since it presents all the more important concepts and ideas which Freud has advanced in his recent writings.

The abnormal psychologic processes is a subject with which the average physician is but slightly familiar. This is a book which will give him a clear insight of the trend of recent work along this line, a work which to say the least has materially helped to unravel the workings of the abnormal brain.

MEN, MANNERS AND MEDICINE. By Medicus Peregrinus. Octavo, in heavy paper cover. Price, postpaid, \$1. W. M. Leonard, Publisher, 101 Tremont Street, Boston.

The sketches which make up this collection originally appeared from time to time in the columns of the *Boston Medical and Surgical Journal*. They represent the observations of a doctor from his professional point of view, on men and books and other phenomena, especially in relation to medicine. They probably will prove entertaining and instructive to some readers.

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Original Articles

ABDOMINAL CALAMITIES *

G. G. ECKHART, M.D.

MARION, IND.

Abdominal calamities are those conditions which suddenly occur within the abdomen—grave and ominous to the patient, and which demand immediate surgical attention. My mission in reading this paper is to point out a few of the practical points, attempt to classify them, to give an impetus toward getting ourselves together and bringing our fellow practitioners into greater cooperation.

You may ask why I do not read this paper before the Medical Section, as the general practitioners are the ones first called in these cases. My answer is, that as surgeons, we should settle some disputes and instruct ourselves as to when is the proper time to operate in these cases. As long as there are two issues taught by two opposite factions so long will the physicians be divided.

The history of abdominal calamities as a whole is unimportant. Keen and Wilson were first to advise operation in typhoid perforation, and the Mayos have advanced the importance of early operation in gastric and duodenal ulcer.

An effort to classify systematically these calamities would be difficult, but in order to observe them more closely they could be divided into the hemorrhagic, non-hemorrhagic, infective and non-infective, and, most important, those attended with a greater or less degree of shock.

There are many theories as to the cause of shock; the most plausible, that of Dr. Crile, which is that some chemical change takes place which

accelerates the vasomotor system. How can a perforation in typhoid fever change the body temperature 9 degrees, as happened in the writer's case? There occurred some phenomena which acted on the thermal center and lowered it. Greater shock follows calamities in the upper abdomen, probably due to a closer relation to the sympathetic nerves and to its being more richly endowed with blood-vessels and lymphatics.

The etiology of a calamity may be primary or secondary; the secondary follows some pathologic process, as perforated gastric ulcer or ruptured appendix. Primary causes are rare and almost invariably follow accidents, as gunshot wounds and ruptured ectopic pregnancy.

The pathology of a preexisting lesion plus the final or almost final change, as infective cholecystitis with extension of the necrosis and sloughing of the mucous, muscular and serous coats with discharge of its contents will produce a calamity the severity of which will vary according to the character of the discharge. The liberation of the partial contents of the upper bowel will not cause as quick and severe an inflammation as the same condition from the lower bowel.

The amount of shock caused from the different calamities will vary according to the location of the lesion, age of the patient, sex, health and the amount of chemical change and liberation of toxic products. As previously stated, shock is more pronounced following calamities of the upper abdomen, by reason of the peritoneum in this region being more susceptible to nerve stimuli. As to age, it is not a matter of years, but a matter of the age of the circulatory system. Shock is greater in childhood on account of the circulation being more taxed, metabolism more active and a concentration of the adult nerve elements. Women seem to be better bearers of shock than men, with exceptional periods, as the menstrual period and the menopause. In passing, nation-

* Read before the Indiana State Medical Association, at Indianapolis, October, 1912.

ality, climate, altitude, time of the day, season, temperament and occupation may be mentioned as having some effect on shock. The chemical and toxic products cause a combined effect of intense irritation of the nerve endings and constitutional disturbances. The liberation of these compounds causes numerous impulses to be carried to the central nervous system.

Can these calamities be prevented? Some can, others cannot. It is superfluous to say all gastric and duodenal ulcers which do not yield to medical treatment should be operated on to avoid perforation as well as malignancy. The same may be said of cholecystitis, appendicitis, salpingitis and of other inflammations that attack organs which tend to slough and erode their walls and blood-vessels. Can the woman in apparent health, working in the store or shop, or returning to and from home, be prevented from having a ruptured tube? Can the ectopic be prevented from rupturing while under the examination of a doctor, as recently happened in Dr. Ladinski's case? Some of these conditions always will have to be met and treated no matter how competent and skilled we become. No one can foretell whether a perforation in typhoid is going to occur unless our fellow general practitioners prevent them with vaccine therapy.

Calamities are always grave, thus the name. I always tell the near relatives that the only chance they have is with an operation, and, if they are considerate people and have confidence in the operator, they will invariably want this life-saving procedure done. Those calamities caused by or associated with hemorrhage, as a rule, are more promising to the patient than the toxic and chemical form. I was treating a case of typical typhoid fever a few years ago when a perforation occurred on the seventeenth day of the disease. The temperature at 10 p. m. had risen to 106, and at 7 a. m. the following morning had fallen to 97. This was followed by projectile vomiting and all the ear-marks of an abdominal calamity.

This boy was operated on thirty-six hours after the calamity and after the reaction, a pin-head size perforation closed by purse-string suture and drainage inserted for forty-eight hours. He made an uninterrupted recovery, resumed the regular course of typhoid and died seventeen days later from hemorrhagic calamity. Post-mortem revealed an erosion of a large artery at the head of the cecum and a complete cicatrix at the site of the preexisting perforation.

A few months ago a man was run over by an auto-truck, the hind wheel passing over the abdomen. He was picked up, taken home and

placed in bed. A competent physician was called and on examination nothing could be found other than contusions and slight shock. He was ordered kept quiet and was seen next morning and found resting comfortably; again at 2 o'clock in the same condition. An hour later the physician was asked to return in haste and he found his patient in collapse. I was then summoned in consultation and a casual examination gave every evidence of grave secondary shock. What had happened? A calamity of the severest type, just the character could not be ascertained. An attempt immediately was started to bring about a reaction, without any avail, and death followed soon afterwards.

Within a few months the same physician called me over the telephone and informed me he believed he had another case of abdominal calamity. A consultation was held and the following condition was found: Patient, female, married seven years, had two children, gave history of being in apparent health. While returning home from her work at a glove factory she was seized with severe pains on the right side. She managed to get home by the assistance of friends and a physician was summoned, but did not arrive until 11 p. m. Patient was found in complete collapse, pallor was extreme and the pulse at times imperceptible at wrist. She was treated for shock, but not much reaction occurred. When seen by the family physician and myself at 9 a. m. the following morning the patient was in complete collapse, vomiting, air-hunger, pulse entirely absent at wrist and in a semi-conscious condition. Every effort was made to restore her from hemorrhagic shock, but not much encouragement was given to the family as to the success of this procedure. I saw her in the evening in the absence of the family physician, and, to my surprise, she was still alive and partial reaction had taken place. It was advised she be taken to the hospital to be operated on early the following morning. All confidence as to the ultimate outcome was entertained by the patient. She had no fear of the operation, which I believe to be a most important matter in these cases. I opened the abdomen in the median line, when immediately blood-clots and some red blood were visible; right tube was the seat of pregnancy, with rupture about one-half inch from uterine end, tube was still bleeding. Patient returned to bed with pulse of 150. She had little if any secondary shock. Salt solution by continuous proctoclysis was given. Under active stimulation pulse improved and patient made an uninterrupted recovery.

Would the result have been the same if patient had had an immediate operation? I believe where it is possible to make an early diagnosis and hospital facilities can be obtained it is better to do the immediate operation, as is shown in Dr. Ladinski's two hundred immediate operations without a death. It is quite impossible always to obtain these advantages, and we as general surgeons will have to reconcile ourselves to do the secondary operation in many cases.

I have mentioned two cases where the secondary operation was done, both successful. The first was the chemical and infective form, the second a pure hemorrhagic case. I could mention several cases where the immediate operation was done, some successful, all were of the toxic and chemical form; one was primary, the rest being secondary to some pathologic process. I was guided in these cases by what we know of the causation of shock and the previous pathologic lesion. As it occurs to me we should operate before the secondary lesion or inflammation makes its manifestation. So long as the shock is capable of causing death in the delayed cases of gangrenous appendicitis with rupture, gastric perforation and allied conditions in a very few hours, so long will we have mortality. As I said in the beginning, let us settle some disputes and cooperate with our fellow practitioners and make an early diagnosis, not only in the pathological lesions that cause the majority of the calamities, but equally as well in the calamities themselves.

DISCUSSION

DR. GOETHE LINK (Indianapolis): Dr. Eckhart's paper is timely. Shock bears about the same relation to the science of surgery that electricity does to the science of physics. We know what causes it and we understand its management, but we do not know what it is.

There are so many abdominal calamities that I shall choose to speak of one which is most common and about which we need frequent stirring up. There is not a man here but will agree that a perforated gastric ulcer should be closed at once if possible. All of you will agree that a perforated gall-bladder should be removed or drained at once. Every one here would consent to an immediate operation in order to sew up intestines through which a bullet had plowed its way; and the latest national gynecologic meetings have resulted in showing that immediate hemostasis is considered by the leading authorities in America to be the proper treatment in ruptured extra-uterine pregnancy. There is, however, one very common accident which circumstances often convert into a genuine calamity. The accident to which I refer is perforative appendicitis. The circumstances which rob the patient of an early

operation make this a calamity. Webster defines a calamity as "any great misfortune or cause of misery." A patient with a perforated appendix and a hesitating physician has been visited by a genuine calamity.

As much as appendicitis has been discussed and as threadbare as the subject is worn, people are still dying of appendicitis in Indiana. Is it because the disease kills instantly? No. It is because appendicitis is not always treated logically as the other abdominal calamities. It is obvious that a perforated stomach should be closed immediately. Why not a perforated appendix, which leads to a far more septic reservoir. Let us quit putting an ice bag on an appendix with a hole in it; let us quit the other time-consuming, impotent measures, which, like amulets, we place on these patients, and have the appendix with a hole in it out within the first twelve hours; for patients so treated recover promptly. Do not consult next morning, operate to-night. When the hesitating physician ceases to hesitate, appendicitis will cease to be an abdominal calamity and become an unpleasant incident. Many of the cases of perforated appendix come from the great group of patients who suffer from chronic appendicitis. Chronic appendicitis, fecolith, ulceration, perforation is the sequence. These patients should have "interval" appendectomies and thus may calamities be prevented.

RHEUMATISM AND ITS KIND; CLASSIFICATION AND DIAGNOSIS *

LOUIS A. BOLLING, M.D.

KRAMER, IND.

Sufficient progress is not made by the rank and file of the profession in making clear-cut diagnoses of the various forms of arthritis. As a natural consequence our management of these cases is often faulty. This is not always the fault of the practitioner, however. Our leading texts on much of this field are not clear and definite. Much confusion has existed and still exists over nomenclature of certain types. Then, again, certain forms in general work outside large centers are only rarely seen and do not afford means of close study and comparison. Much of our haziness has only been dispelled by the immense help afforded by the x-ray and skiagraphic work. To offer some classification with a few distinctive diagnostic features which shall prove practical, if not wholly accurate and scientific, is my one purpose in taking up so vast and intricate a subject to be treated within the narrow confines of a paper. For the sake of brevity and by reason

* Read before the Indiana State Medical Association, at Indianapolis, October, 1912.

of their distinctive characteristics I shall make no effort at including the tubercular, syphilitic and septic forms of arthritis.

When once a clear understanding of rheumatism as such is well established, the whole subject of arthritis is rid of many of its terrors; and the way is opened for a more exact classification of kindred affections. I wish to submit two modern definitions of rheumatism. Osler defines rheumatism as "an acute, non-contagious fever, dependent on an unknown infective agent, and characterized by multiple arthritis and a marked tendency to inflammation of the fibrous tissues."

J. C. Wilson of Philadelphia describes rheumatism as "an acute febrile disease of undetermined causation, characterized by polyarthritis of fugacious character, and a tendency to inflammation of the endocardium and pericardium." The distinctive characteristics thus cited, which would seem to stamp its diagnosis beyond confusion with all other affections of its kind are polyarthritis with fever and its acute, fugacious character.

But, let us look further. There are other infectious processes with polyarthritis accompanied with fever. Grouped under the head of infectious arthritis, to which properly rheumatism belongs, most writers include a miscellaneous class of joint manifestations which are in reality secondary to other infectious processes. They might more properly be termed toxic; for it is rare that any organism can be demonstrated in the joint fluid of these cases even if it were desirable or necessary. Most types in this group are the result of toxemia from some source of local infection which must be searched for. The most familiar type is that from tonsillar infection. Pneumonia and la grippe are responsible for many cases. Puerperal sepsis and suppuration within the abdominal and thoracic regions may give rise to secondary joint involvement. In this group must be included, too, the forms of secondary multiple arthritis associated with cerebrospinal meningitis, dysentery, scarlet fever and gonorrhea. So, too, the milder forms of arthritis associated with tabes dorsalis, small-pox, typhoid fever, chorea and purpura. In all these diseases arthritis is generally secondary or a terminal condition. Only by thorough examination of our cases and watchfulness of their clinical behavior may we hope to avoid mischievous errors in this field and not overlook the primary condition.

Gonorrheal arthritis by reason of its standing as the type in this group of secondary joint manifestations, deserves more than a passing mention. Usually we have the history as an important guide; but even without this information, poly-

arthritis with intense pain and relatively slight fever—the case running an extremely irregular and rebellious course—is highly suggestive of its gonorrheal origin.

Another form of arthritis included in the infectious group by most writers, is Still's disease. Contrary to the hypertrophic form, which type it most resembles, it attacks very young subjects, involving generally the knees, elbows and hands, producing great enlargements and contractions. It certainly should afford little opportunity for confusion with true rheumatism. It usually runs a subacute or chronic course without much fever and lacks the fugacious character. Under this caption we must not lose sight of the general prevalence of constipation, fermentative dyspepsia and autotoxic processes, and their possible etiologic influence in many atypical forms of arthritis running a subacute or chronic course.

Leaving out all consideration of the tubercular and septic forms of arthritis, we have but one other acute primary condition with which to encounter confusion, namely, gout. Gout I think is not more often diagnosed due to the false notion that it is confined to the affluent class, to the belief that it must always be ushered in with involvement of the great toe, and further, the failure to recognize the chronic forms. The patient's habits, occupation and heredity, combined with the urinary findings are sufficiently suggestive in acute attacks. And what is even more suggestive as distinguishing gout from rheumatism is an acute polyarthritis with little or no temperature disturbance in the former. The chronic forms afford a history of repeated acute attacks, quite suggestive; and examination will usually reveal tophi in the ears and chalk stones or concretions about the swollen deformed joints.

We are now ready to consider the chronic forms of arthritis. Least understood and most confusing to the profession are the chronic progressive deformities, attributed to trophic changes. The atrophic form known also as arthritis deformans is seen oftenest in adult life about the middle period and more commonly in women. Pathologically it affects all the joint structures, first in the form of an infiltration, later through the course of years, by atrophy and gross changes, it leaves a condition analogous to cicatrization. Atrophic arthritis when once established, leaves characteristic deformities familiar to all. In small joints, as of the hands, the thinning out of the cartilages at the second row of phalangeal joints, a favorite sight, results in hyperextension. Less often but commonly seen is the ulnar deviation of the hands. The disease

is always polyarthritic and shows a preference for the small joints.

The hypertrophic form, on the other hand, is more common after the middle period of life, and is somewhat more common with men than women. The cartilage of the joint structure is the chief point of attack, and this, too, mainly in the large joints. In distinct contrast to the atrophic type the soft parts generally escape. As a further distinctive characteristic the hypertrophic shows itself, both in men and women, a disease with less of the neurotic element and more of the traumatic etiologic influence than in the atrophic form. This is the osteoarthritis of many writers and prominent orthopedists. In the aged this form of arthritis is commonly associated with arteriosclerosis. Pathologically, the cartilage hypertrophies, particularly at the margins, producing a lipping or overgrowth, which in the main accounts for the limited mobility. Osseous spurs often develop in advanced cases; but as a rule, when the disease has run its course, we have little more than enlargement of the joint and somewhat restricted motion. At no time is pain a very active factor, and constitutionally the patient may seem comparatively normal. Most cases are exceedingly slow in development. A type often seen by every practitioner is that affecting the terminal phalanges, producing the knotty appearance, or the so-called Heberden's nodes, with lateral deflection usually.

Perhaps no physician who will take the trouble to examine for the condition will be misled by a case of faulty arches. In the face of various classifications, it seems sufficient to recognize only two forms—flat-foot, or broken arch, self explanatory in name; and weak arch—the latter not evident to inspection when placed at rest, but noticeable on standing. These cases should not be overlooked by physicians until finally recognized and treated by the shoemaker.

Before leaving the subject reference should be made to so-called chronic rheumatism and muscular rheumatism. If we have accepted our former definition we must discard these latter terms. Indeed many writers have long since done so; but our texts still cling to this classification, only to perpetuate confusion. Most cases of so-called chronic rheumatism are not resultant from acute rheumatism, but come on insidiously, run an entirely different course and persist indefinitely. With a little study they will usually admit of accurate classification either in one of the trophic groups or the infectious group.

Muscular rheumatism is now pretty generally conceded to be in most instances not an affection of the muscles at all, but a neuralgia, more often

a neuritis, of the sensory nerves imbedded in the affected area. It is high time that we recognize the true character of this very common affection. It is analogous to sciatica wherever seated; so that lumbago might properly be called lumbar neuritis, pleurodynia, intercostal neuritis, rheumatic torticollis, cervical neuritis.

Finally in any considerable experience with arthritis a most careful examination and study of the case must occasionally result in a diagnosis recognizing mixed types or border-line cases. It is no uncommon thing to note the presence of both the atrophic and hypertrophic forms of arthritis in the same individual. Indeed, in passing it may be consoling to mention that many clinicians and writers treat them as one, recognizing no essential difference in their etiologic factors, their behavior and ultimate course. In a given case atypical in character and seemingly obscure in origin, it would seem sufficient to consider or treat it as arthritis, until a study of the conditions reveals its probable etiologic and pathologic nature and in turn its rational treatment. Such procedure would be decidedly more to our credit than tossing it into the old scrap heap of rheumatism.

DISCUSSION

DR. C. S. BOND (Richmond): This is a very interesting subject. The doctor very properly has devoted his time to differential diagnosis of rheumatism. You know we do not know what rheumatism is, and the best way to proceed is to throw out all the symptoms that are associated with something else. But after we have all the facts in these cases we still have a large group of conditions that affect the joints, subacutely, acutely and chronically, and these conditions are multiple in their manifestations and in the underlying causes.

I think it is one of the easiest things in the world to diagnose acute rheumatism when we have a case so severe that the patient cannot use his hands, or if he cannot walk around the room without great discomfort. It is a very easy matter to diagnose that sort of rheumatism. But there are other cases that are not so easily diagnosed, and on which we as physicians have slipped up a good many times. I think I will tell you of some cases that have been very interesting to me.

A year ago I was called to see a young lady about 15, who had a very badly swollen knee joint. There was considerable inflammation, and the joint was so painful that we could not touch the bed without having her cry out with pain. I naturally thought from her condition that I had a case of acute rheumatism in the knee joint, but after getting the history I found that her grandmother had died a little while before of tuberculosis—general pulmonary tuberculosis, and it

had been but six or eight months before this time that this case first began. I took into consideration that this little girl might have become infected, I inquired particularly about her lungs and whether she had a little cough, and I found she had. I made examination of the chest and found the upper right lobe involved with some sort of mass which I took from her history to be a tubercular mass; the sputum showed tubercle bacilli. What happened? This girl had this rheumatism; in about a week she had the same condition in her left knee; then in the ankles, the toes and the joints of the hands, and after four or five months I found she did not have rheumatism at all, and I had to change my diagnosis to arthritis deformans. This girl had infection from tuberculosis, but it did not result in the sort of infection that we usually expect. She did not have tuberculosis in her knee joints, but she had a tuberculous condition in her body which infected her knee joints.

PROSTATECTOMY IN THE AGED, WITH A REPORT OF TWO SUCCESSFUL CASES NINETY YEARS OF AGE *

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Usually an aged patient with prostatic obstruction is advised to use the catheter. This is to be deprecated because 5 per cent. die in three to four years and approximately 100 per cent. finally die as a result of prolonged catheterization. This certainly is sufficient reason to look for something better, but to it must be added the enormous inconvenience and untold privations and suffering, both physical and mental, that must be the lot of the patients condemned to the use of a catheter with all of its untidy accompaniments during his declining years. When it is considered that the mortality from prostatectomy is only about 5 per cent. we are justified in advising this operation regardless of the age of the patient when there is any chance of a successful result.

From the very favorable results experienced with a number of cases operated between the ages of 50 and 90, the writer thinks it advisable to recommend operation in any case where there are no serious contra-indications.

The medical adviser has no better opportunity in his practice to aid mankind than in being able

to recognize the beginning of prostatic obstruction, and the lack of knowledge by the profession concerning the early symptoms of this disease is unfortunate. It is not uncommon for patients to succumb to the sequelae of this disease before the primary condition has been recognized.

Before the operation it is most important that the kidney function be known, as the mortality is very high when the kidneys are seriously impaired.

There are two end results that the surgeon should consider possible or probable before doing a prostatectomy in the aged: first, the removal of the obstruction; second, the certainty that the patient will have bladder control and not suffer from urinary incontinence.

Postoperative incontinence of urine is a serious sequel of perineal prostatectomy. It is this, above all others, that should cause a surgeon to discontinue the so-called median perineal operation for removal of the prostate in preference to the perineal operation which I shall describe later.

To illustrate, the following cases are reported briefly:

CASE 1.—Age 90. First seen Sept. 12, 1909. Family history negative. Usual diseases of childhood. No venereal history. Five years ago he noticed burning, urgency and frequency of urination; it was necessary to void urine twice during the night. These symptoms remained about the same until four months before the date of admission to the hospital when he began to have considerable obstruction. His physician at this time passed a sound which was followed by chills. After this seizure, the patient had complete obstruction and required catheterization four to eight times daily. There was considerable dribbling.

At the date of admission to the hospital the patient was having pain in the prostate, rectum and fossa navicularis. He had been vomiting and was greatly emaciated. It was necessary to pass a catheter eight or ten times in twenty-four hours and the bladder capacity was 8 ounces. The urine was foul and contained considerable bacterial flora, and further showed quite an involvement of the kidneys. There was a marked degree of arteriosclerosis and an intermittent, irregular pulse. The patient had suffered so much that he preferred death to a continuance of pain.

Operation.—Dr. Floyd Shipp administered ether and chloroform alternately. The perineal method with the inverted "V" incision was used. There was a very small amount of hemorrhage and shock was slight.

The two-way perineal drainage tube of the writer's design was removed at the end of twenty-four hours and the patient was able to sit in a

* Read before the Indiana State Medical Association, at Indianapolis, October, 1912.

chair the second day following the removal of the drainage tubes with slight pain and from then on with comfort. At the end of the first week he was walking about in his room and getting in and out of bed without assistance. He left the hospital at the end of the fourth week with complete control of the urine, and greatly improved general health.

When last heard from, January, 1912, he stated that the perineal wound had remained closed; that he could void urine naturally at intervals of every three to four hours; that he did not suffer any pain; that he had gained in weight, and that his general health was good.

CASE 2.—Age 90. Family history negative. Usual diseases of childhood. No venereal history. First examined at Deaconess Hospital, Feb. 3, 1912. Frequent nocturnal urination for three years. Difficulty of urination first noticed one year ago, which had continued to date. Four days before admission to the hospital, after exposure to the cold weather, was catheterized for the first time. Was unable to void urine afterward.

Operation.—Gas-oxygen anesthesia by Dr. H. L. Connor. The perineal method with the inverted "V" incision was used. Patient recovered without shock. Continuous bladder irrigation was used for twenty-four hours through the two-way catheter and then the tube was removed. The patient sat up in bed the second day following the operation. At the end of the first week the patient was able to walk about his room unaided. The urine began to flow through the urethra on the twelfth day, and on the twenty-first day all the urine came through the natural channel.

At present this patient has complete control of the urine, which he voids without the slightest difficulty.

In most of the cases the writer prefers the perineal operation as recommended by Dr. Hugh H. Young of Baltimore.

First, a No. 23 F sound is introduced into the urethra and then an inverted "V" incision is made, each branch of which is about 5 cm. long. This incision is carried through the fat and superficial fascia. The incision begins 5 cm. anterior to the anus and at a point just over the lower part of the bulb, the branches curving backward to a point about 1 cm. inside the tuberosity of the ischium and on a level with the anterior margin of the anus.

The next step is to open the natural fossa on each side of the central tendon, by blunt dissection. This is the keynote of the operation, and one should be careful not to direct the finger toward the rectum, for fear of tearing it.

As soon as these lateral fossae are opened, the central tendon is put on a stretch and the bulb

of the urethra is exposed. The central tendon is then divided with care so as not to injure the bulb and cause annoying hemorrhage. The rectourethralis muscle, deep in the wound, should also be divided so that the rectum can be easily retracted.

The bulb tractor is now used to draw forward the triangular ligament, the external sphincter and the bulb, so as to expose as much of the membranous urethra as possible. An incision is then made through the membranous urethra and the sound and artery forceps are used to hold the edges of the mucous membrane of the urethra apart so that the prostatic tractor may be introduced to draw the prostate down into the perineal wound.

The levator ani muscles and rectum are pushed backward on each side with the handle of the scalpel until the shining membrane (ant. layer of the fascia of Denonvilliers), the real fascia of the prostate, is seen.

With a good exposure of the prostate, two capsular incisions are made, through which the enucleation of the lateral lobes is accomplished.

The enucleation is done with the blunt dissector and index finger. Each lobe should be removed in one piece if possible. If a median lobe or bar is present it can generally be removed by engaging it with one blade of the tractor, making traction and rotating at the same time which brings the lobe into one of the lateral cavities from which it can easily be removed.

After the operation is completed a two-way drainage tube is inserted into the bladder and fastened by a suture at the apex of the skin wound.

The lateral cavities are packed with gauze and continuous irrigation is begun which is continued for twenty-four hours.

In twenty hours the gauze is removed from the lateral cavities and in twenty-four hours the two-way tube is removed. From this time the patient is not disturbed with the catheter and bladder irrigations. The small opening in the urethra closes promptly and the wound heals as rapidly as a median one.

The advantages of this operation over the old perineal operation are:

1. The excellent exposure of the prostate in the field of vision.

2. Clear cut incisions without laceration of the urethra and bladder neck. The only damage done is a 2 cm. opening in membranous urethra.

3. Freedom from hemorrhage due to avoiding the bulbous urethra.

4. Freedom from shock as a result of lack of hemorrhage and no traumatism to the bladder neck.

5. Brief perineal and bladder irrigation allowing the patient to assume the upright position early, thereby eliminating hypostasis.

6. Early removal of drainage tubes which encourages healing of the perineal wound, thereby preventing subsequent perineal fistula.

7. By not injuring the vesical sphincter, urinary incontinence is prevented.

8. Scar formation and contraction do not occur because the vesical neck is not lacerated.

9. Short and comfortable convalescence.

DISCUSSION

DR. W. N. WISHARD, Indianapolis: The doctor has been very fortunate in seeing cases of such advanced age. I have never seen a patient of 90 who had prostatic obstruction who had not developed symptoms of the obstruction prior to that age.

The classical period for development of obstructive symptoms from prostatic hypertrophy is from 50 to 70, but it appears in some cases at a later period. There are, as has been stated, three different methods of radical surgical operations on the prostate. The suprapubic method, the median perineal method, and that of Young.

The question of diagnosis is one of such great importance that I think it deserves emphasis in the consideration of any of the different methods of surgical relief. It is well recognized that examination by the rectum does not convey very much information so far as indicating the character, or the degree of the obstruction within the bladder or urethra. Measurement of the urethra, including the distance from the meatus to the depth at which urine is obtained by the catheter, is of some value, but its value is only relative, as the apparent length of the urethra may vary from time to time in the same case so far as indications by catheter measurement are concerned. Much stress has been laid on the cystoscope in recent years and it is of considerable value, but its findings are often misleading. In many cases the prostatic urethra is not only elongated, but the angle is gradually increased behind and forward, and it is apparent that the introduction of a cystoscope, the shaft of which is rigid, and which must be passed far enough for the distal end to be within the bladder, must necessarily convert a curved channel into a temporarily straight one; and that in doing so there is a certain amount of displacement of the vesical orifice, and intravesical growth backward, if the growth is located behind the vesical orifice as is usually the case, such displacement of the tissue increases its apparent size and gives a misleading impression on inspection.

Ideal cystoscopy to convey a correct impression as to the size, shape and position of the intravesical growth should be made through a suprapubic opening. This, of course, is impracticable except in rare instances. In two or three cases where suprapubic trocar puncture and temporary catheter drainage had been used where catheterization was impossible, I have been able to en-

large the suprapubic trocar opening sufficiently to get a good direct inspection from above. The appearance in two of these cases was strikingly different from that obtained when the congestion had subsided sufficiently to introduce the cystoscope by the natural channel.

On inserting the finger into the bladder at the time of operation, one rarely finds that the intra-urethral and intravesical conditions tally with the cystoscopic appearance previously obtained. Personally, I believe it of the greatest importance to have a clear conception of the size, shape and condition of the growth before it is removed, and this can only be obtained by inserting the finger into the bladder either through the median perineal, or a suprapubic opening. I asked Dr. Moore while he was reading his paper if he inserted his finger into the bladder through the opening into the urethra before or after removing the prostate, and he replied, that it was done after the removal of the growth. This may be all right if you are dealing with a case of uniform symmetrical hypertrophy of the lateral lobes without any special narrowing of the vesical orifice, and without much change in the position of the vesical orifice, and where there are no marked intravesical growths, such as we often find in cases of enlargement of the middle lobe.

It is well known that we not infrequently find enlargement of the middle lobe attached near the center of the vesical orifice and projecting into the bladder and producing partial or complete retention, where there is no enlargement of the lateral lobes, and in such cases, it would seem an unnecessary surgical traumatism to reach the middle lobe by dissecting through a normal lateral lobe. A much simpler and easier method of attack in such cases is to reach the middle lobe growth through a median perineal opening, or through a suprapubic opening. That you are dealing with a case of this kind can only be determined by inserting the finger into the bladder before removing any part of the growth.

I recall a patient, age 76, who was entirely dependent on the catheter and had been for two or three years, and the cystoscope showed a mass of tissue behind the vesical orifice. I found no enlargement of the lateral lobes by rectal examination. I made a median perineal opening and discovered that the prostatic urethra had a decided forward angle, and was greatly increased in length and the vesical orifice was very small. I dilated the vesical orifice, sufficiently to get the finger into the bladder, and found there was no intravesical growth and that the mass which had appeared through the cystoscope was a simple displacement of the tissue behind the vesical orifice at the time the cystoscope was introduced. I simply divided the vesical orifice posteriorly until I reached a point which I estimated to be the original position of the orifice and did not remove any tissue. The patient made a perfect

recovery with complete restoration of bladder function and was able to permanently dispense with the catheter.

Undoubtedly, some large intravesical growths can most easily be reached through a suprapubic opening. It is the operation of choice with the majority of European surgeons, and it seems in the last few years to be growing in favor with American surgeons. The first prostatectomy which I ever did was done through a suprapubic opening some twenty-two and a half years ago, and was, so far as I am able to learn, the first prostatectomy performed in this state. I do not find it necessary to do a suprapubic opening in many cases, and am usually able to remove the prostate thoroughly through a median perineal opening. It is true that some mucous membrane may be removed with the growth through a median perineal opening, through a suprapubic opening, or through the inverted V-shaped opening with extra-urethral incision as advised by Young. Those who have carefully studied the condition of the tissues at the time of operation, and have made careful pathological examinations of their specimens afterward, recognize that the hypertrophied prostate is much more firmly adherent to the urethral mucous membrane than it is to the outside of the so-called surgical capsule. It is correspondingly more difficult by any method of enucleation to remove the prostate on the urethral side without including some urethral mucous membrane. It is, however, quite possible to remove it through a median perineal opening in some cases without removing any mucous membrane. After making a median perineal incision and passing the finger into the prostatic urethra and bladder, the finger can be drawn down to the apex of the prostate at the point where the extreme lower part of the hypertrophied tissue is felt, and an oblique lateral puncture made which gives access to the lower end of the surgical capsule and enables one to pass the finger around the growth and enucleate it. Again I find that in doing so it is very easy to detach it from the capsule, but that when I have detached it all around, except on the urethral side, that it takes more care and more time and involves more difficulty than in detaching it from the capsule.

As to the question of traumatism to the urethra, I have repeatedly inserted a large endoscopic tube through the median perineal opening a few days after operating and found by direct inspection that the entire channel was perfectly covered with mucous membrane. Personally, I prefer the median perineal opening in the majority of cases, but we must recognize that no one operation is applicable to all cases of prostatic hypertrophy. I think the Young operation is ideal in cases of uniform hypertrophy of the lateral lobes, but I do not think it affords as good opportunity for diagnosis at the time of operation as either the suprapubic or the median perineal.

There is one thing on which much emphasis has been laid with which I cannot wholly agree, and that is, that Young's operation is an open one and gives opportunity to see what you are doing. This is only partly true as it simply brings the prostate down into the operative area where you can see the lower end of it and after the capsule has been incised it is removed by the finger and blunt instrument enucleation and forceps just as it is detached and removed through a median perineal opening, except that you see the lower end of the prostate at the point where the incision is made into the capsule and you see the protruding part, and are perhaps a little better able to insert the finger directly into the wound. In doing the Young operation you by no means see all of the operative area, and are guided by the sense of touch after getting into the capsule with the finger. While a free opening is usually desirable in any form of operation it is easily possible in some cases to remove some prostates through a median perineal opening with an incision simply large enough to insert the finger into the urethra and bladder. While this is possible it is not generally advisable. On the other hand, the extensive dissection and large opening in the inverted V-shaped operation certainly does, in the hands of some operators, favor an impairment of bladder and urethral support. Two patients have been referred to me from neighboring cities where the Young operation had been performed and where both the patients had fistulous openings and both had incontinence of urine. I was able to repair the fistula in one of them, but did not succeed in closing the other one and I was not able to relieve the incontinence in either case. This does not necessarily argue against the Young operation, and I believe that Dr. Young himself has reported no such unfavorable results. Quite a few other surgeons, however, have had them, and from time to time we receive reports of openings being made into the rectum in attempting to do Young's operation. Perhaps there is less bleeding and possibly less shock in doing the Young operation, but it requires more time and longer anesthesia. I have seen Dr. Young operate in a very few minutes, but the average operator in doing his operation will require more time than is necessary for one so skilled and experienced as Dr. Young. I think it is a pretty safe rule for each operator to operate in the way which he, individually, has been able to get the best results.

The question of getting patients out of bed in the first twenty-four or forty-eight hours is, I believe, still a debatable one. However skilfully and successfully a prostate operation may be done it is nevertheless a serious operation and I do not believe it safe to get patients on their feet within twenty-four or forty-eight hours after operating. I operated on a man from a neighboring state and he did beautifully the first forty-

eight hours and was in such perfectly satisfactory condition that I had him propped up on a bed-rest—he died a few moments afterward from embolism. As soon, however, as practicable the patient should be allowed to sit up, and their position in bed should be changed from time to time early and frequently, as the danger of pneumonia is one that we must constantly recognize.

The question of drainage has been referred to. I believe in prolonged drainage before operation in practically all cases. I think prolonged drainage after operation is necessary in many cases. In a paper read before the American Association of Genito-Urinary Surgeons some twenty-two years ago I emphasized the question of prolonged drainage before and after operating on the prostate. I called attention to the fact that there was not only improvement in the condition of the bladder but that marked improvement in the percentage of urea and the specific gravity of the urine occurred and that it greatly diminished the quantity of pus and the amount of epithelium shown by microscopic examination. In the past year or two I have verified its value by using the functional elimination test in many cases prior to and subsequent to operating. As we find these patients, the trouble is not with the prostate alone, but we are dealing with a badly damaged bladder which will be greatly benefited by functional rest obtained both prior to and following the operation. The amount of urea will decrease where the bladder is given prolonged functional rest by drainage before operation, and the amount of pus and epithelial debris will diminish, and functional drainage rest after operation promises the early healing of the wound and is of advantage in many ways. In some cases of atonybladder where the prostate has been completely removed we may still have impaired function of that organ and more or less necessity for the use of the catheter simply because the bladder has not functional power to empty itself. This class of cases fortunately is rare. I have never had a case of permanent perineal fistula following a median perineal operation or a suprapubic operation and I am not aware that I have ever had a case of permanent incontinence; occasionally patients have incontinence for a few weeks or months.

DR. CHARLES E. BARNETT, Ft. Wayne: The last word in prostatic surgery has not as yet been said, for many surgeons, for instance, Zuckerkandl of Vienna, Froedenberg of Berlin, Fenwick (to a degree) of London, Cabot of Boston, and others, have changed their method of operating from suprapubic to the perineal and back again to the suprapubic, or vice versa. The fact is admitted that perineal prostatectomy is the better way to-day on account of the lessened mortality that it still gives, which is probably due to the better drainage. Yet no man is entirely satisfied with his results and the fashion just now seems to be pointing towards the suprapubic route.

Dr. Moore is to be congratulated for the unusual age of his patients operated on, yet an old man in good condition is better than a young man in bad condition. So physical fitness and not years decide the question of operative risks. It makes the genito-urinary surgeon fairly shiver to think of some of our general surgeons taking patients who come into the hospital one day, to the operating-room for a prostatectomy the day following, with no knowledge whatsoever of the body's ability to withstand an operation. A preparatory treatment of a week or two with an inventory made of the body pathology is more essential, in my opinion, for the recovery of the patient than the operation itself; in other words, pre and postoperative treatment take precedence to the operative technic. I believe that more than one-half of the general surgeons' prostatectomies die on account of this omission.

In regard to the use of the cystoscope in these cases I agree entirely with Dr. Wishard.

Regarding the question of saving the ejaculatory ducts. I am sure that a complete prostatectomy will take away that portion of the ducts between the lobus centralis (Alberans) and the lobus posterior (Zuckerkandl) along with the sinus pocularis. All of which makes no great difference to the patient.

The so-called Young's incision, which was first used by Celsus was, I believe, prominently introduced by Zuckerkandl in his extra-urethral dissection to the prostate. Outside of the prostatic region the urethra was not opened by him and drainage was introduced through the urethra from the bladder. If all men could do the perineal prostatectomy as Young does it, according to his ideas, then that extensive dissection would be entirely right all the time, but without Young's artistic technic and extensive experience, it is my opinion that a superficial skin cut with a median intra-urethral incision down to the prostate is the incision of choice.

DR. F. H. JETT, Terre Haute: I am glad to hear no defense of the catheter in all the discussion of this paper. Last year when I read my paper on this subject there were several that came to the defense of the catheter.

I became interested in prostatic surgery by watching that master worker, Hugh Young, and became a convert to his method which has been so nicely described in this paper. This operation is based on anatomical grounds and is a beautiful dissecting operation. It was hard for me to understand why so many operators used the suprapubic method. I asked Deaver why he used the suprapubic and he answered that he had more confidence in himself with the method. Of course no one would question his ability to do the anatomical dissection nicely and quickly. There has been an answer to these things in a paper by Tandler and Zuckerkandl on the surgical path-

ology of the prostate which has been confirmed by Wilson and McGrath of the Mayo Clinic. This paper is too long to discuss, but will say that they say that the capsule or sheath found in operating for this condition is nothing but compressed prostate gland and that the base of the prostate is pushed backward and downward with the important things we wish to save in this operation. To accept their work means that the suprapubic operation is the operation of choice, as it is now on a sound pathological basis whereas before it was based simply on experience. It means that Young's operation is not now a "conservative" operation, for if you wish to conserve the important structures in this region, the suprapubic method will best do this. It can be said, however, that the perineal is the drainage operation and the operation of short convalescence.

DR. J. R. EASTMAN, Indianapolis: It occasionally happens that the prostate may be much more easily reached and more safely dealt with through a suprapubic opening. When this is the case any trustworthy operator will select this method. However, notwithstanding all that has been claimed by the advocates of the suprapubic prostatectomy, many thoughtful men will be loth to give up the perineal operation of Young, as described by Dr. Moore, for the potent reason that even the friends of the suprapubic operation admit a higher mortality. The essayist, for lack of time, omitted to speak of an important step in Young's operation. It consists in accurate coaptation of the edges of the levators ani at the completion of the enucleation, to the end that the rubber drainage tube and the gauze may not lie in contract with the rectum and cause fistula. As for the incision in the skin, I do not think any is comparable with a semi-circular incision, convexity upwards, beginning and ending one-half inch within tubercles. A flap is turned down, and there is never any need for lateral retraction. I like this much better than Young's inverted Y incision, or inverted V incision, or the median incision used in the operation known as "Wishard's median prostatectomy." I incline to the belief that prostatectomy patients should be out of bed as soon as can be, assuming that the danger of embolism is not so great as that of hypostatic pneumonia or postoperative mania.

DR. EHRLICH: I see no reason why an old man should not be operated on, providing his general condition is good. My own experience and observation incline me to prefer the suprapubic route, as it is easier to reach the prostate from within the bladder. A prostatectomy should never be done until the patient has had the benefit of continuous drainage before operation and shows a tendency to improve with that drainage.

DR. H. A. MOORE (in closing): I think that first of all, in the cases of prostatic obstruction,

we should consider the kidney function and whether the patient will be comfortable after operation. The diagnosis is important but we can't make a positive diagnosis with our present methods. In the large intravesical type of prostate I prefer the suprapubic method, but in the majority of cases I prefer the Young operation.

I can't agree with Dr. Wishard in regard to the use of the median operation, as I cannot get satisfactory results with this method. One reason for not using this method is that the shock following is often serious as is also the hemorrhage. I think the good results of my operations are due to following Dr. Young's methods.

MYELOCYTIC LEUKEMIA *

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Myelocytic leukemia, is one of our less common but very easily diagnosed diseases. The diagnosis depends entirely on our acquaintance with the variety of white blood-cells, which are divided primarily into two great classes: Lymphocytes, which are non-granular, mononucleated white blood-cells, about the size or a little larger than a red corpuscle; leukocytes, which are granular, polynucleated cells.

The leukocytes are again classified according to their tinctorial qualities: those which stain with acid stains are polynuclear oxyphils or eosinophils, those taking a neutral stain, polynuclear neutrophils or neutrophils, and those having basic affinities are polynuclear basophils or mast cells. Each cell has characteristics or functions probably peculiar to itself.

In the diagnosis of leukemia these cells which are normally found in the circulation are of comparative insignificance. It is the myelocyte which does not normally circulate in the blood but is confined to the bone-marrow which is the diagnostic element in myelocytic leukemia.

Myelocytes are larger than leukocytes and like the leukocytes are classified according to their staining affinities; myelocytes mature into the leukocyte of their corresponding kind—they are juvenile forms of the leukocyte.

In this disease the myelocyte count frequently runs so high, that in the finer capillaries they lead to accumulation and clogging, materially affecting the circulation and nutrition of organs. They may even occlude the circulation as in one case of mine, developing a persistent priapism.

* Read before the Indiana State Medical Association, at Indianapolis, October, 1912.

The pathology of myelocytic leukemia is a disturbance of the bone-marrow which exhibits a replacement of the hyperplastic gray marrow, in which the myelocyte predominates with transitional states from myeloblast through myelocyte, to the neutrophilic leukocyte—eosinophils and mast cells may also be encountered.

In the spleen all orders of cells seen in the bone-marrow are encountered and the organ becomes quite enlarged occasionally extending to middle line and down, filling the pelvis. As the splenic vein forms part of the portal system, the pathologic conditions react on the liver and we have associated with the other symptoms an hepatic enlargement.

Occasionally the hyperleukocytosis is so extensive, that from this alone the diagnosis could be made, but it is to be remembered that it is the qualitative change in the leukocyte formula and not the grade of leukocytosis which is characteristic.

The very characteristic element of myelocytic leukemia is the neutrophilic myelocyte; often many monogranular neutrophils which are myeloblasts and mature into myelocytes are seen, and other forms of leukocytes probably juvenile in form which it is hard to classify may be picked out in the field of our scope.

Accompanying this leukocytosis there is always a low red blood-cell count, which is already well established when the patient is seen for the first time.

The erythrocytic count really is the index of the patient's condition, and in this count we do not meet with the sudden fluctuation encountered in a systematic record count of the white blood-cells. Because of the abundance of white corpuscles the color of the blood will always be low.

The subjective symptoms, dyspnea, vertigo, weakness, wasting, epistaxis, retinal and other hemorrhages are dependent on the secondary anemia which in some cases is very marked.

Dr. Stengel, who has had a large experience in blood diseases and in whose clinic I spent much time last year, states that his experience does not include any myelocytic leukemia that recovered permanently. He has seen some cases in which a duration of five years was reached under treatment. His results with the *x*-ray treatment have been much more encouraging than those from the older arsenical treatment, with which he has had a large experience. In general, he says, our results have been better in the lymphatic cases than in the myelogenic varieties under *x*-ray treatment.

In the past the treatment for leukemia has been arsenic, recently benzol has been extolled but the treatment which has proven most efficacious is the *x*-ray. While as yet it is not lauded a cure, we do feel that it undoubtedly prolongs life and gives much comfort to the decline. The treatment with *x*-ray is the application of the ray along the long bones, for brief but daily periods. A closely observed blood-count almost invariably shows a change following mild exposure to the ray.

In the fall of 1910, Mr. ——— came to see me because of sudden obscured vision in left eye—examination revealed a retinal hemorrhage. Eight months later, I was called to see same patient because of a persistent priapism. Examination revealed a very much enlarged spleen; the differential blood-count was diagnostic of myelocytic leukemia.

The priapism continued for ten days, and therapy from ice applications and chloral, through all the sedatives to a complete ether anesthesia was of no avail. The priapism after ten days became so painful as to make some recourse imperative. Two deep lateral incisions into each corpora cavernosa were made and much clotted blood removed; this was succeeded by an alarming hemorrhage which was checked only by passing a sound and tightly compressing the penis at its base. The priapism subsided and after a slight hemorrhage following the removal of the sound next day, the penis gave no more annoyance.

This case was now turned over to Dr. Cole, roentgenologist of this city, who treated the long bones with *x*-rays which materially affected the blood-count.

At the beginning the blood showed the following:

R. B. C., 1,380,000.

W. B. C., 496,000.

Color Index, 1.9 per cent.

Diff. Count: Poly., 47 per cent.

S. L., 9 per cent.

L. L., 1 per cent.

L. Mono., 1 per cent.

Eosin., 1 per cent.

N. Myelocyte, 1 per cent.

At expiration of six months' treatment the count was:

R. B. C., 2,666,000.

W. B. C., 205,000.

Peculiar feature of this case was that during the holidays when the patient indulged freely in the Christmas festivities the W. B. C. ran up to 600,000.

DISCUSSION

DR. A. M. COLE, Indianapolis: I am sorry I have not a cure to report of leukemia treated by the *x*-ray. I have treated a good many cases in the last ten years, some of them responding not at all, and some responding beautifully. I have had several cases in which the blood-count came back to normal, and the patient felt as well as ever in his life, but after a period of a few months or a year or so recurrences would appear which would not respond to the *x*-ray treatment, and the patient would soon develop pronounced symptoms and death would soon follow. That has been the history generally of the *x*-ray treatment of leukemia. In recent years there has been a new technic by Dr. Pancoast and Dr. Sturgis, by which they treat the long bone only, and they have much hope that this improved technic will offer possibility of cure in some cases. Dr. Sturgis made the statement to me that he hoped they might make a cure in a few cases. They have had cases treated five or six years ago, and the patients are apparently well; but it is early to say that they are permanently cured. So with improved technic we have hopes that we may be able to affect these cases in some permanent way.

The last cases I had were four, the first mentioned by Dr. Keeney. Every case should react to treatment. Usually in a few months we hope to get the blood back to normal. The second case was a very acute case in a child that I only treated for a short time, and which finally resulted in death. The third case is a young man, not a severe type as Dr. Keeney has outlined, but the white cells ran, I think, to 200,000. After three months' treatment his blood is almost back to normal, he is feeling perfectly well and wants to get loose. He cannot see the necessity of keeping up the treatment, and the probabilities are that he will soon quit the treatment, and then we will expect a relapse sooner or later. The fourth case I have just treated a very short time.

To sum it all up, I think the German, Sternberg, writes a very good article. He says the general consensus of opinion over there is that they hope to prolong life. He emphasizes the necessity of watching the blood so as to institute another course of treatment at the first indication of an exacerbation. By this means he was able to keep a number of patients in good condition with fair earning capacity for years. He quotes several cases benefited by treatment, the most interesting of which was a woman aged 35 years, whose blood showed 450,000 small lymphocytes per cm. *X*-ray treatment caused a diminution of this count to 31,000, and this improvement has persisted. In the author's opinion radiotherapy acts both directly on the blood-making organs and indirectly by substances generated in the circulation which have an inhibiting action

on the production of leukocytes elsewhere than in the parts subject to the irradiation. He mentions that radiotherapy quite regularly improves the condition of leukemics, but recurrences occur, and finally the treatment is without effect in many cases. Further, he also claims that he knows of four cases developing in men working with the Roentgen rays. (Not a very cheerful outlook for Roentgen operators.) As additional treatment, Sternberg advises arsenic during a pause in the radiotherapy, or possibly coincident with it, but he warns against the continuation of the use of the *x*-rays if any of the manifestations of arsenical poisoning appear, such as herpes, eczema or paralysis, since such a herpes may progress into gangrene if the Roentgen exposures are kept up. He also mentions as a contra-indication to continued *x*-ray treatment, the appearance of large numbers of myeloblasts in the blood. He enumerates many other medicinal agents, phosphorus, bone-marrow, thymus, spleen, etc., as being without beneficial action. So we may say that the German experience has been about the same as American, only I think he makes a little too broad a statement in saying that these cases may be kept alive for many years. I do not believe many of them will go over a period of five or six years.

DR. H. A. THURSTON, Indianapolis: The last word has not been said in regard to myelocytic leukemia, because we do not know the cause. That point the doctor did not dwell on. There have been different theories and traumatism has been assigned as a possible cause.

I would like to give a definition, if I can, of leukemia in general. It has been defined as a disease of the blood-making organs characterized by the presence of leukocytes, with an increase in the per cent. of myelocytes, an increase of lymphocytes, coupled with a polynuclear element.

I have not had any personal experience except making some blood examinations. I have had little experience in cases of acute lymphatic leukemia. In this we have an increase of the lymphocytes, chiefly of the large variety. In the chronic form of leukemia you have an increase of the small lymphocytes. Myelocytic leukemia, as the doctor has indicated, is the presence of myelocytes in large numbers in the circulating blood. Few myelocytes are normally in the blood, except perhaps in early childhood, and sometimes during the course of pneumonia or some acute infection. In lymphatic leukemia there is usually a hyperplasia of the lymph structures and also enlargement of the spleen. There are times in myelocytic leukemia and also in lymphatic leukemia when there is a reduction of these hostile elements; then there is suddenly an increase.

It is true that diagnosis is properly made by the blood examination. The doctor has gone into that.

The prognosis of this disease is bad. Some of them will linger on for years, and again others will die soon. In lymphatic leukemia hemorrhages are characteristic, and they come on more severely in acute lymphatic form.

A SIMPLE METHOD FOR THE INTRAVENOUS ADMINISTRATION OF NEOSALVARSAN

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INDIANAPOLIS

Following Ehrlich's recommendation that salvarsan, and later neosalvarsan, be given intravenously, a vast array of apparatus from funnels to pumps and gravity jars made its appearance. Each proved of more or less value in the hands of their originators and the profession, until now the simplest form is but a glass cylinder to which is attached a piece of rubber tubing and an ordinary aspirating needle. This device has served the writers in nearly fifteen hundred intravenous injections of salvarsan and neosalvarsan. In this series it was necessary to cut down upon the vein in but two instances. Some eighteen months ago Lydston, as reported in the *New York Medical Journal* of October 21, 1911, stated that he had given the drug intravenously with a 10 c.c. glass syringe. The method was also reported editorially by Dr. Brayton in the *Indianapolis Medical Journal* of February, 1913, following the suggestion of the writers of this paper. This method is now the one of preference and constant use in the clinics for skin and syphilis in the Bobbs and City Dispensary and is becoming very generally used in office practice in Indianapolis.

In a series of 150 cases we have given the equivalent of old salvarsan in 0.1, 0.2, 0.3, 0.4 and 0.6 gram neosalvarsan in 10 c.c. of freshly distilled water with the glass syringe here illustrated. The insertion of $1\frac{1}{2}$ inches of small bore pure gum tubing secures a convenient and in some instances a necessary flexibility to the needle. No complications followed in any case. We find the average reaction following the administration of neosalvarsan by this method is less than that following the use of 75 to 100 c.c. given by the gravity method.

The neosalvarsan by its ready solubility is well adapted for this simple method of administration, and it seems to us that the great reduction in the

quantity of water used tends to reduce to a minimum the usual after effects.

After selecting the vein for the injection, sterilize the skin with iodine and alcohol. The syringe having been boiled in distilled water, the piston is introduced within the barrel and 10 c.c. of warm, freshly distilled water poured in. The neosalvarsan is now shaken into the syringe. The nozzle is replaced and solution brought about by tilting the syringe up and down. Attach the needle, express the air, if present, from the syringe, introduce the needle within the selected



Apparatus used by the authors in intravenous injections

vein and draw back the plunger. If the needle is within the vein the blood will flow into the syringe. A few drops of blood within the glass nozzle is ample evidence that the needle is within the vein. Then inject the fluid slowly.

311 and 432 Newton Claypool Building.

NON-PERIOSTEAL BONE-GRAFT

H. G. WETHERILL, Denver (*Journal A. M. A.*, May 17), reports the latter results in his second case of transplanting bone-grafts without periosteum, reported in that journal March 29, 1913. A photograph is given showing the boy standing on the grafted leg with the other foot raised from the floor. He walks without crutches and the shaft of the bone at the grafted point feels and appears larger than that of the opposite leg. An x-ray picture is also given.

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EDITORIALS

FEE-SPLITTING

In a letter published in the March number of THE JOURNAL Dr. Miles F. Porter, Fort Wayne, suggested that a vote be taken on the subject of fee-splitting. A large number of physicians have responded to the invitation, and in the correspondence department of this number of THE JOURNAL will be found several letters bearing on the subject. Space did not permit the reproduction of all of the letters received, and we regret that some of our correspondents who have furnished us with some very interesting documents and information relative to the "boodling game," as one correspondent calls fee-splitting, have refused to permit their names to be used.

It is very evident that a large proportion of the general physicians and no small number of surgeons prefer not to discuss the fee-splitting proposition. The reason is obvious. No man who is possessed of good moral fiber will defend fee-splitting as ordinarily practiced, and the man who gives or accepts a commission, which almost invariably is a secret transaction and therefore a species of graft, avoids discussion of the subject. If unwillingly he is forced to express an opinion he eases his conscience by trumping up an argument, based on false premises, concerning his desire to be a party to a "square deal." The surgeon, forgetting that it is solely "to get the business" which prompts him to give a commission, says that he wants to see that the general physician is adequately paid, or he advances the spurious argument that he pays for assistance at the operation. The general physician, forgetting that it is solely to get something which he does not earn that prompts him to accept the commission, says that he wants to share in the prosperity of the surgeon, and he lamely contends that he cannot get it except through the fee-dividing process. Both surgeon and general physician forget the patient, who is the victim of misplaced confidence and who is a matter of convenience—an object for barter and sale to the highest bidder whether the bidder be worthy of

confidence or not. They forget that the patient has any rights or feelings that should be respected, and more important than all, they forget that the noble profession of medicine demands honor of the highest type of its sincere and honest followers.

Fee dividing among medical men always has and always will be a commercial proposition which has no place among ethical and honorable physicians. It started through covetousness on the part of certain unsuccessful surgeons who desired more business and incidentally more income, and was accepted by certain general physicians, not as their due but as "easy money," in the same spirit that is manifested by the boodling alderman when he accepts money to vote for a vicious franchise. The practice is ethically and morally wrong, otherwise it would not have been secret and the public kept in ignorance of it. Gradually the practice grew, for success even in "grafting" spreads if unchecked, and now we see and feel the damnable results which follow in the wake of a dishonorable and dishonest practice. The venal, incompetent surgeon pays any commission that is necessary "to get the business," and the unscrupulous, though in some instances the innocent but avaricious, general physician grabs the bait that is thrown out, and the patient, the one above all others whose interests should be conserved, is the sufferer. On the heels of this the well-trained surgeon, seeing "the business" pass him and go to others less deserving, and noting the manner in which unworthy competitors thrive, often yields to the temptation not only to give fees but operate whether operation is justified or not; for the general physician who is looking for the largest commission is also looking for the surgeon who always operates when the case is primed for it.

Harsh things, someone says. Yes, but the truth, as every member of the medical profession knows. And where will it end? In dishonor and disgrace unless we stamp it out as we would a viper that is threatening life. No whitewashing and no subterfuges. Fee-splitting in any guise must be suppressed by the medical profession or the public will suppress it for us and in a manner that will humiliate and damage every man in the medical profession. Human ills are not legitimate objects of traffic by honorable physicians, and it is high time that we purge our profession of piratical practices which if much longer continued will be suppressed by law. Already the people are beginning to be justly suspicious of our boasted devotion to the best interests of our patients, and are beginning to discuss

in uncomplimentary manner the fee-splitting practice. Not a few patients in every community are forsaking the general physician who is suspected of being a collector of material for some fee-dividing surgeon, and more ominous rumblings have been heard in Governor Marshall's last message to the Indiana legislature when the fee-dividers came in for reprimand and the recommendation that laws be passed to punish them.

And now for the remedy. It must be recognized that there is an inequality of compensation. Either the surgeons get too much or the general physicians get too little for their services. We believe and have maintained that the general physician is too poorly paid, but that is no reason why he should desire to pull the surgeon down to a like condition, or that he should ask the surgeon to divide fees. If the surgeon gets too much then make him return something to the patient from whom he unjustly obtained it. If the general physician is not paid enough then let him collect more from the patient to whom services are rendered. It is neither morally nor legally right for him, while ostensibly serving the patient and presumably paid by the patient for the service, to hold up the surgeon for another fee. If he renders valuable service to the patient, and he certainly does when he spends time and exercises skill in making the diagnosis, takes responsibility, and gives important advice, then he is entitled to fees equivalent to what he ordinarily gets from a fee-dividing surgeon, and in nine out of ten cases the patient will pay the fees without objection and respect him the more for it. The trouble of it is he wants the fees without earning them, or if he earns them then without publicity, and it is he, not the patient, who objects to the surgeon's fee unless the surgeon is of the kind who will divide. In fact the whole question resolves itself into one of just and adequate compensation for the general physician, and he is his own worst enemy in all efforts to better his condition. Either he does or he does not earn the fees he gets out of his surgical cases. If he earns them then let him charge and collect from the patient. If he does not earn them then he is not entitled to them as a gift from the surgeon who ought to earn all that he charges.

The one thing which the general physicians should learn is that they owe it to the public to give the very best service, and that the compensation should be in keeping with the quality of service and the responsibility assumed. The average patient recognizes skilful services and is willing to pay for the same as evidenced by his willingness to pay the fees of the surgeon. When-

ever you find a patient objecting to fair compensation for skilful service usually you will find an envious or trouble-loving physician back of the complaint, and the disturber fails to understand that when he makes it hard for his brother physician to secure proper recognition or just compensation he is making it harder for himself to secure what is his own due.

Medical men, as a class, are very poorly paid if we consider the time and money expended in becoming fitted for work, the responsibilities assumed and the value of the services rendered. A lawyer is admitted to the bar after a few months' study. He can charge \$500 for drawing up a will, \$1,000 for settling a small estate, or \$1,000 to \$2,500 for successfully defending a client, and the public considers it quite proper, for not a single lawyer offers objection or criticism. Let a surgeon who has spent years of time and thousands in money in equipping himself for his work charge a well-to-do family \$500, or perhaps \$1,000 for saving a life through the medium of a skilful and technical operation, and immediately there goes up a howl from the public, *backed by medical men*, to the effect that the surgeon has committed highway robbery. The services rendered by an experienced and competent general physician in saving a life are on a par with the services of the surgeon, and the only reason that they are not so considered by the public is because the physician himself underestimates the value.

Finally the solution of the fee-dividing proposition, if the medical profession is to solve it, largely resides with the general physician. He must stop trying to get something without giving an adequate return. He must render the best possible service to his patient, and readjust his estimate of his own worth. He must try to raise his own level instead of trying to pull others down to his present level. He must, in company with every physician in general practice or a specialty, build up instead of tearing down, and, last but not least, he must be fair to patient and himself, and morally and ethically true to his profession. He cannot be this and indulge in fee-taking from the surgeon.

DELAYED UNION RESULTING FROM OPERATIVE FIXATION OF FRACTURES

While the treatment of fractures by means of external appliances often leaves much to be desired in the way of accuracy of adjustment, and in view of the tremendous impetus given to the

open method of treatment by the results of Lane's work, it is worth while to review some of the less successful results of such method.

Primarily, it must, of course, be remembered that not all forms of fractures lend themselves to this line of treatment, and it is the wise selection of cases suitable for operative fixation that one surgeon's results will excel those of another who may be an equally good technician. Indeed Lane, himself, pays his respect to the compound fracture when he says:¹ "Perhaps the variety of recent fracture that causes the surgeon the greatest anxiety is the compound fracture, since he has to deal with the strong probability of infection. Personally if I can obtain a reasonable approximation of fragments, I prefer to treat this form of fracture by splints or some similar fixation apparatus. If there were very definite sepsis, I would even prefer the fragments uniting in a bad position to accepting the risk of introducing screws into a septic wound. . . . Of course, one's treatment of this form of fracture must vary largely with the locality of the fracture and with the degree of infection. It is well to remember that organisms will remain quiescent for a long time in a fracture which has united firmly and apparently normally, and that the subsequent introduction of screws may stimulate them into active growth and so endanger a junction."

A succinct résumé of the indications for operation is that of Clairmont, quoted by Bloodgood.² The first step is reduction; if this cannot be obtained by some special maneuvers as advocated by von Frisch (under ether), then this itself is an indication for operation. Undoubtedly as our experience grows, we will be able to select, after the study of the Roentgen plate, those cases in which operation is indicated, and save these patients loss of time by extension, except for preliminary treatment, and necrosis.

Although a long time advocate of and an earnest worker in the operative treatment of certain closed fractures, Roberts³ has recently sounded a note of warning regarding the delayed union which has resulted from plating in his own and other men's cases, as well as some fatalities. He likens the present tendency of some radical operators to overdo the method, to the earlier situation regarding oöphorectomy and to present-day tonsillar surgery. Last year he reported two deaths following fixation of closed fractures of the femoral shaft with plates and screws, and knows of one other death occurring in Philadel-

phia under similar circumstances. Ransohoff quotes Babler's series from the St. Louis City Hospital, showing two deaths in thirteen cases of simple (closed) fractures of the femur, and knows, himself, of two other deaths after operative treatment of this injury.

Roberts undertook his study with a view to determining, if possible, whether or not the opening of a closed fracture, for the purpose of establishing an anatomical correction of a deformity, has a tendency, not to shorten but to lengthen the time of consolidation of the broken bone. The impetus for the inquiry arose from a personal case wherein such operative interference in a closed transverse fracture of the tibia with a double fracture of the fibula, was undertaken because of two unsuccessful attempts at reduction without operation. Despite the absence of infection in this case, or the interposition of muscle or fascia, non-union persisted until after the plates were removed. He quotes Mr. Lane as saying that anatomical reposition in the manner advocated by him is almost never followed by delayed union or non-union. Likewise, Huntington, San Francisco, claims that in practically all cases where anatomical reposition has been attempted, three things have been accomplished; rapid bony union, absence of deformity, and absence of pain; and he declares that a very large percentage of all cases of delayed or non-union can be attributed to faulty adjustment.

In contrast to the opinions of these two writers, those of several other workers along this line are quoted which are somewhat at variance with the above-named ones. Darrach, Roosevelt Hospital, New York, from a rather large experience in this kind of work, concludes that firm union comes a little more slowly in fractures that have been opened. Ashhurst is of the same opinion, and even as enthusiastic a supporter of fixation treatment as Leonard Freeman declares that it is certain that delayed union is more common after operation than when fractures are treated by the ordinary means. He also says that this delay in union may occur when the periosteum has not been disturbed and when no wires are employed, indicating that he attributes the slowness of bony repair to the operative intervention itself without reference to foreign bodies being used or the periosteum being unduly disturbed. Fritz Koenig would lay the blame on the removal of blood-clots and tissue fragments, which are supposed to stimulate bony union, while other surgeons attribute the delay to the foreign bodies introduced.

1. Murphy's Clinics, February, 1913, pp. 14 and 15.

2. Progrès Med., December, 1911, pp. 239 and 240.

3. Annals of Surgery, April, 1913.

Martin, Philadelphia, in 1911, declared that union is usually delayed, the time of treatment not materially shortened and the results not uniformly good, although as a whole, infinitely better than could have been secured by other than operative means. In 1912 he made the statement that as a rule the presence of a plate, instead of stimulating osteogenesis between the broken bone ends, retards it.

Albee, New York, quotes Martin's remarks and recommends the use of bone grafts instead, in the ununited fractures. His work on the spinal-bone transplant for the surgical cure of Pott's disease is most fascinating and contains in its review much that would tend to confirm Macewen's contention of the non-osteogenetic function of the periosteum.

Hessert, Chicago, though never having had a case of infection, has had the experience of seeing union delayed weeks and even months.

Plummer, Chicago, quotes Murphy to the effect that union was slower when a Lane plate had been applied and relates this as his own experience in some cases.

Blake, New York, does not think the occurrence of non-union so very rare, especially in the femur, even when the fragments had been maintained in end-to-end position by external splints. He has seen cases of non-union after wiring get firm union after subsequent plating. Curiously enough he has had three cases of mild infection, with a production of rather excessive callus wherein union did not only not seem delayed but was even apparently accentuated. Not that he regards infection of such wounds as a satisfactory thing, since those severe enough to cause necrosis of tissue will obviously cause delayed union and he looks on infection as the worst calamity that can occur in operations for fractures.

All told Roberts' article is a sane, logical and conservative plea for the proper selection of cases for operative interference and a protest against the overenthusiasm that prompts the radical treatment for closed fractures in which a good anatomical result could be gotten by careful, intelligent splinting or other external measures.

Personally we believe that with the present-day advances made in the cold-storage preservation of tissues and bone transplantation, the day of metallic plating is beginning to wane. Certain it is that with the same degree of asepsis, a man with a mechanical mind has a far wider range of possibility in the field of bone transplantation than with the introduction of rigid, inorganic masses into the body tissues.

THE FIRST GALL-STONE OPERATION

Mrs. Mary E. Burnsworth, 77 years old, of McCordsville, who, nearly forty years ago, underwent an operation for gall-stones, the first of its kind ever performed, is dead.

Her death, which Dr. A. L. Marshall, superintendent of the hospital, said was caused by old age, occurred at the Deaconess Hospital, Indianapolis, April 22, 1913.

The operation which prolonged the life of Mrs. Burnsworth and brought fame to the surgeon, Dr. John S. Bobbs, who became known as the "father of cholecystotomy," was performed in Indianapolis, June 15, 1867.

The gall-stones removed numbered between forty and fifty. The smaller ones were no larger than a shot, while the larger ones were the size of a pea. Other physicians present when the operation was performed were Drs. R. N. Todd, George W. Mears, John P. Avery, D. H. Oliver, F. S. Newcomer, John Cominger, John Cameron and a Dr. Moore.

In 1905 Mrs. Burnsworth was taken by the Medical College of Indiana to the Portland meeting of the American Medical Association, and she was a part of the historical exposition in the scientific section. She attracted much attention from the physicians and surgeons attending the meeting and was asked many questions concerning the famous operation.

At the time of Dr. Bobbs' operation there were no hospitals for private cases and no trained nurses. The *Indiana Medical Journal*, in telling of the operation, stated that the patient was taken to a room on the third floor of Vinton & Kiefer's drug store, prepared for the occasion, and Dr. Bobbs engaged an Englishwoman to care for the patient the six weeks required for her recovery.

One year after performing the famous operation, Dr. Bobbs read a paper on the case before the annual meeting of the Indiana State Medical Society. The paper was entitled, "Lithotomy of the Gall-Bladder," and was printed in transactions of the society the fall of 1868. The article slumbered here for more than thirty years, and was first reprinted in the *INDIANA MEDICAL JOURNAL* in October, 1899, in connection with the proceedings of the American Association of Obstetricians and Gynecologists. A large edition of the issue containing Dr. Bobbs' paper was published, and copies were sent to every surgeon and laparotomist of note both in the United States and Europe. The article was much commented on and was made the main subject of a paper read before the Johns Hopkins Historical Club and printed in the Johns Hopkins Hospital

Bulletin of August, 1901. Dr. Bobbs died May 1, 1870, after a long life of eminence as citizen, philanthropist, soldier and surgeon.

Dr. Bobbs was born at Green Village, Pa., Dec. 28, 1809, and began the study of medicine at the age of 18. He came to Indianapolis in 1835 and the same year took a course of lectures at Jefferson Medical College, graduating in 1836. When the Medical College of Indiana was organized he became professor of surgery and later was dean of the faculty. He was with Gen. T. A. Morris of Indianapolis in the first campaign of the Civil War and won distinction by his bravery. Dr. Bobbs was regarded as the greatest general surgeon and teacher of his day in Indiana, and his operation on Mrs. Burnsworth marked an epoch in the development of surgery in the United States. Dr. Bobbs died in Indianapolis, May 1, 1870.—*Indianapolis Star*.

BLAMING THE DRUGGIST

When some years ago the Council on Pharmacy and Chemistry investigated Lactopeptine it was claimed that "Lactopeptine contains the five active agents of digestion—pepsin, diastase (vegetal), pancreatin, lactic acid and hydrochloric acid—combined in the proper proportion to insure the best results." The Council's examination indicated that Lactopeptine contained more than 90 per cent. of milk sugar. The amount of pepsin was somewhat less than 10 per cent. of official pepsin. The amount of lactic acid was found to be 3 per cent. Neither diastase nor pancreatin could be found and hydrochloric acid was present in mere traces only. Examination of another specimen not only failed to show the presence of diastase and pancreatin but also failed to show any appreciable amount of pepsin.

What have the promoters of Lactopeptine done to offset this report? The November 1912 "Doctor's Factotum," an advertising sheet, contains the following:

"The mere presence of digestive enzymes like pepsin, trypsin, amylase, etc., is *not* sufficient.

"Stimulation, inhibition and activation are intimately bound up in the cycle of digestion and are responsible for its proper development and course."

After suggesting that after all it does not matter much whether enzymes are present or not we read further:

"And the most vital and most important fact in regard to Lactopeptine is that it is a *combination*, acts as a combination and secures results only to be gotten from such a combination."

Then, of course, it is suggested that only the Lactopeptine people can make this combination. Finally to cap the climax the suggestion is made that if the medicine does not do what is expected of it the druggist has practiced substitution. Thus the last word in the above-named advertising sheet is:

"Failure to get results usually means *substitution*."

"Therefore, write it thus: Lactopeptine (Genuine) and send your patient to an honest pharmacist."

We extend our sympathy to the poor druggist who so often is made the "goat" by proprietary medicine concerns. Let us hope, however, that this reflection on the druggist will not only be the cause of further discrediting Lactopeptine but also the equally discreditable substitute, Pulvis Pepsini Compositus, which the druggists have officialized in their National Formulary—this despite the fact that in 1907 the then president of the American Pharmaceutical Association (the late Mr. Leo Eliel of South Bend, Ind.) called the attention of the medical profession (*Jour. A. M. A.*, April 6, 1907, p. 1198) to the fact that the pharmacists had since 1876 been aware of the worthlessness of Lactopeptine.

PREVENTION OF CARDIAC STRAIN DURING ANESTHESIA

It is probable that up to the present time and in the future the full deleterious effect of anesthesia on the human organization and particularly on the heart and respiration have not been, and will not be for a good many years, thoroughly understood. However, that we are making some progress along the line of elucidating some of the problems of anesthesia, is shown by the excellent article of Gatch, Gann and Mann on the "Danger and Prevention of Severe Cardiac Strain During Anesthesia," published in *The Journal of the American Medical Association*, April 26, 1913.

Although their investigation was started primarily to determine the effects of the Trendelenburg position on the circulation and respiration, yet some other features were brought out during the course of their researches which will prove of inestimable value to the practical anesthetist whose heart is in his work. From clinical observations and from the experience of a large number of surgeons and anesthetists, these men had felt sure that this posture occasionally endangered the life of a patient during anesthesia. Checked by clinical observations, their experiments demonstrated that such conclusion was

correct and that the dangerous effect was produced by an increase of the flow of blood to the heart to a marked extent. Indeed, they believe that more fatalities result from such cause than from a diminished supply brought about by hemorrhage or so-called surgical shock. The most injurious agents they found to be the Trendelenburg posture, forcible pressure on the abdominal viscera and struggling during anesthesia.

Although these effects in practice may act together, yet in their experimental work an effort was made to determine the separate effects of the various agents, and their first effort was in the direction of the elucidation of the Trendelenburg problem. In all the danger of an over-filling of the right side of the heart is greatly enhanced by asphyxia and for that reason the effect of obstructed breathing on each of the conditions was carefully investigated.

An experienced gynecologist once told them that he knew of no more certain way to kill a fat woman than to leave her for a certain time in the high Trendelenburg position and they have observed that the head-down position is badly borne by patients with cardiac disease, or by those with obstructed breathing.

Hill, investigating the effects of gravity on the circulation and respiration, using morphin to anesthetize animals, found that in the dog and cat the blood-pressure falls in the carotid artery under the influence of gravity in the head-up posture and rises in the feet-up posture; that compensation for these effects is brought about in normal animals by vasoconstriction in the splanchnic area in the head-down position with cardiac acceleration in some cases, and by cardiac inhibition and by vasodilatation in the feet-up position. Salathé found that rabbits are killed by the feet-down position in from fifteen minutes to two hours, the animals practically bleeding to death into their splanchnic veins. Hill also showed that with vasomotor tone abolished, the respiratory movements can still compensate to some extent for the effect of gravity on the circulation, this compensation in the feet-down position being accomplished by a contraction of the abdominal muscles, serving to compress the splanchnic vessels, and by deep thoracic inspirations serving to aspirate blood into the heart. In the feet-up position it is brought about by a relaxation of the abdominal muscles, and by diaphragmatic inspiration, this type favoring the accumulation of blood within the abdomen and thus protecting the heart against overdilation. In the monkey Hill found the vertical position to raise the blood-pressure under morphin because of the more highly developed vasomotor mechanism

of this animal. With the vasomotor tone abolished, however, as by chloroform anesthesia and less rapidly by ether anesthesia, the animal is affected in the same manner as the dog or cat. Hill demonstrated that in the approximately normal animal, the head-down position can be maintained for hours without ill effects, but such is not the case in the animal anesthetized with ether, as shown by the author's experiments.

Working on dogs, the authors anesthetized with ether and placed the animal in the Trendelenburg position of from 45 to 50 degrees and kept a continuous record of blood-pressure and respiration throughout the remainder of the experiment. Only four of fifteen dogs lived in this position more than an hour and a half unless revived by artificial respiration; one dog died in three minutes and another in five minutes. The average time of survival for the entire series was about twenty minutes, nearly all of the dogs died while very lightly etherized and when ether had been entirely removed. The change to the head-down position caused a slight rise in blood-pressure, a slightly increased pulse-rate and little or no change in the rate of respiration, but breathing became more labored and of a diaphragmatic character. While the animal remained in the abnormal position, its pulse and blood-pressure showed practically no change until failure of respiration which invariably occurred sooner or later. After marked variations the breathing would weaken and gradually cease but the heart would always continue to act normally for a time, and the blood-pressure would rise or remain at the same level, but at the end would abruptly sink to the base line with death in from one to two minutes after cessation of respiration. If the dog were lowered and given artificial respiration as soon as the blood-pressure began to fall, it could usually be revived.

From these experiments the authors feel warranted in concluding that the cause of death is primarily failure of the respiration because the heart action remains good and the blood-pressure high until after the breathing has ceased. As to the cause for the respiratory failure, the authors feel that in some way it is due to the ether, since it does not occur when morphin is used instead, and that it is due to some action on the respiratory center. They also believe that they have conclusive proof for the opinion that a partial or complete failure of respiration is made much more dangerous by the head-down position.

Dogs etherized and having a free supply of air show enormous variations from minute to minute in the amount of pulmonary ventilation and are extremely liable to sudden complete arrest of

breathing. From their experiments, the authors feel that the pulmonary ventilation is just as good in the Trendelenburg as in the horizontal posture.

It is this sensitiveness of the dog's respiratory center to ether that seems to afford the explanation of the death of the animals in this series, because as long as the breathing remains good, the animal has stood the head-down posture without ill effects. Partial or complete respiratory failure, however, greatly increases the danger in this position because the heart, poorly supplied with oxygen, has to pump a supply of blood, made much greater than normal by the action of gravity, against the blood-pressure elevated by asphyxia. With a weak heart even a partial failure of the breathing, not noticeable in the horizontal position, may prove fatal in the Trendelenburg posture.

In order to investigate the effect of struggling a dog's thorax was opened in such a manner as to obtain a good view of the heart, and respiration maintained artificially, but the animal was anesthetized so lightly that during asphyxia it would struggle, although the anesthesia was deep enough to prevent pain. With each available contraction of the abdominal muscles, the right auricle and ventricle could be seen to balloon out to great size, showing to what extent the blood in the abdominal veins was being squeezed into the thorax. Under the dreadful strain the heart would become overdilated and cease to contract. None of these animals showed a continuation of cardiac action for more than one minute. Besides overdilating the heart in this manner, muscular contractions, by using up the oxygen in the blood, rapidly increase the degree of asphyxia. A patient with a powerful muscular system is prone during anesthesia to reflex spasms of the respiratory muscles accompanied by violent struggling, particularly the conditions investigated in these experiments.

From the work of Roy and Adami we know that abdominal compression increases the output of the heart 29.6 per cent. since the abdominal veins can contain all of the blood of the body. Hence, if the intestines are packed off with gauze and retracted upward, it is fair to presume that the heart has to handle a greatly increased amount of blood.

From the brief enumeration of these experiments it will be seen that the important agents whereby excessive cardiac strain takes place are the head-down position, pressure on the abdominal viscera and struggling. The effect of these is greatly accentuated by asphyxia and indeed, in the entire absence of the last-named element, it

is probable that the normal heart would not be injured.

The three classes of patients peculiarly susceptible to injury by overdistention of the heart by anesthesia are those with a well-developed muscular system, alcoholics and patients with disease of the circulatory apparatus. All should be given from one-sixth to one-fourth grain of morphin, and 1/100 of atropin an hour before operation. Alcoholics should be given whiskey or brandy shortly before taking anesthesia. In the opinion of the authors it is a serious mistake to allow an alcoholic to struggle along in the early stage of his anesthesia, becoming cyanotic even for a period of two minutes, since it is more than probable that such patient will suffer either a temporary or permanent injury to his heart muscle. Indeed, they declare that it is better to spend half an hour etherizing a man of this type and put him to sleep without cyanosis, or if this is impossible even to defer the operation, than to anesthetize him at the cost of a deep cyanosis of even the short duration mentioned. Patients with cardiac disease prefer a sitting posture and should be anesthetized in either the sitting or semirecumbent posture, since the sitting posture diminishes the pulmonary congestion, aids the breathing, prevents pressure of the abdominal organs on the heart and hence any rush of blood from the engorged splanchnic veins to the heart. Quiet should be maintained to reduce oxidation incident to muscular action, a preliminary dose of morphin given and the anesthetic administered sufficiently slowly to put them to sleep without the least struggle. This class of patients should never be placed in the Trendelenburg posture.

Patients with exophthalmic goiter, with pneumonia or empyema should be managed the same as cardiac patients.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

FEE-DIVIDING is a crooked deal between surgeon and general physician, with the patient as "the goat."

THE Association defended Dr. Chas. Marvel, Richmond, in the malpractice suit in which judgment was rendered for \$2,000. The case will be appealed to a higher court, and it is fully expected that the verdict of the lower court will be reversed.

FOLLOWING on the heels of the announcement that Friedmann has sold his tuberculosis cure we learn from the public press that Indiana is to share in the ill fortune of having one of the Friedmann institutes. If the reports are true the right to use the Friedmann cure has been secured by the Rockwood Sanitarium.

SECRETARY COMBS reports that our paid membership is larger than ever before at this season of the year. The promptness with which dues have been paid is accounted for by the activity of Secretary Combs, as also a desire on the part of members to be in good standing so that they will be entitled to all of the benefits of the Association, including medical defense.

IN the death of Dr. C. A. Daugherty, South Bend, ex-president of the Indiana State Medical Association, and at the time of his death trustee of the American Medical Association, the medical profession has lost one of its noble characters. He supported all that was good and true in his profession, was loyal to his friends, and a wise counselor to many who needed advice.

A GREAT deal has been heard concerning the Dr. Helene Knabe murder case, and it was thought that when Dr. Wm. B. Craig and Dr. Alonzo M. Ragsdale were indicted for the crime something would be accomplished, but the inactivity of the prosecuting attorneys seems to indicate that the case will drag along from term to term and finally be dropped altogether.

THE pulmotor, a device for resuscitating asphyxiated persons, is becoming very popular throughout Indiana, and a large number of cities and towns are now possessed of the device. Its value in life-saving has been demonstrated in a number of instances. By means of the pulmotor the lungs are alternately exhausted and expanded with air, and provision is made for the introduction of oxygen.

ONE of our correspondents says that the subject of fee-dividing has two sides to it. We admit it. The first side is that of the surgeon—to get the business; the second side is that of the general physician—to get the graft. A third side, or that of the patient, should be added—to get “stung”; but then our fee-dividing friends do not consider the patient except as the incidental means to the end.

ONE of the county medical society secretaries is not a member of the Indiana State Medical Association, and aside from this has failed to turn in to Secretary Combs association dues collected from several members of his county society. Strange as it may seem even one of the councilors has failed to pay his association dues for 1913. What can be expected of the rank and file in the Association when officers fail to fulfil their obligation?

FROM a number of reliable sources we learn that it is not customary, nor is it considered honorable for lawyers to divide fees. All reputable and honorable lawyers present separate bills for legal services and do not offer nor accept commissions. We are informed that a few lawyers, and most of them are known as shysters, are guilty of the practice of fee-splitting, but they and their unprofessional methods are condemned by the respectable element in the legal profession.

THE program committee desires that a synopsis of every paper to be presented at the West Baden session shall be in the hands of the committee not later than June 1.

We desire to remind all essayists that the program, including short abstracts of all papers, will appear in the West Baden number of THE JOURNAL. All committee reports must be in THE JOURNAL office not later than August 25, so that reprints may be made for distribution to members of the house of delegates.

THE JOURNAL will continue to publish the names of those who are in favor or opposed to fee-splitting. Every member of the Indiana State Medical Association will be given an opportunity of aligning himself on one side or the other. Those who refuse to be placed on record will stand in the attitude of being either ashamed or afraid to uphold their conscientious beliefs. Our readers will probably place their own construction on the silence of some men who should be willing to be placed on record.

AN Indiana physician wrote several Indianapolis surgeons to the effect that he frequently had surgical cases to be referred for operation and desired to know what percentage of the fee would be awarded him for referring the cases. It is presumed that he received a sliding scale of commissions, with the largest commission paid by a pseudo-surgeon who now gets the business. And this is tolerated and by some upheld in the

name of honorable medicine! Ye gods, what a reflection on our time-honored cult!

THE general physician who accepts a commission from the surgeon is placed in a bad light all around. If he accepts a commission and then afterward collects a fee from the patient he is worse than a grafter, for he is taking toll both ways. If he accepts the commission in lieu of a fee from the patient then he is placing himself in the attitude of having sold the patient for a price, and the patient will very naturally wonder if he has not been the subject of barter and sold to the highest bidder, whether such be the case or not.

ONE of our correspondents in discussing the fee-splitting proposition seems to place all medical and surgical skill on the same plane and to be charged for at so much per hour or day like the services of a laborer or mechanic. The surgeon's responsibility in an operation is far greater than a general physician's responsibility in a case of consultation and the fees are correspondingly greater, and should be greater. On the other hand, a surgeon goes in consultation for fees no greater than those charged by a skilful general physician.

THE local physicians of South Bend are editing a department entitled "How To Keep Well" in one of the prominent newspapers of their city. The articles deal with local conditions and are intended to assist in spreading the doctrine of good health. Practically every county medical society in Indiana has a publication committee, but in few localities does the committee do any work. We believe that if these societies would start the committees working on public health articles for publication in the daily newspapers, much good would be accomplished in disseminating valuable information concerning health matters and in consequence there would be less damage done by the garbled medical items that frequently appear from the pens of those who would exploit the public.

DR. A. C. KIMBERLIN, President of the Indiana State Medical Association, has set himself to the task of visiting every county medical society in the state. It is quite evident that he will succeed in accomplishing what he has set out to do, and in the end should be able to give us some valuable information concerning the status of the various county medical societies and offer suggestions as

to how conditions may be improved. Many of the county societies are very active and progressive, whereas others exist in name only. How best to revive these apathetic societies is a question which merits the earnest consideration of councilors and all of those members of the medical profession who are interested in the progress of medical organization work. President Kimberlin should be able to help solve the problem.

THE trustees of the medical department of the Indiana University have gone on record as opposed to fee-dividing among physicians and surgeons, and in favor of asking for the resignation of any member of the teaching staff who is guilty of the practice. It is quite evident that there is occasion for demanding the resignation of some of the Indianapolis physicians who are connected with the university, for some of them are making no particular secret of the fact that they are dividing fees. It remains to be seen what action the trustees will take at their annual meeting. Some surgeons shrug their shoulders and say that they do not propose to be mixed up in the fee-splitting controversy. Very well, then such men can find no fault if we arrive at certain conclusions as to the actual reasons why they do not desire to be placed on record.

FRIEDMANN and his tuberculosis cure never did "ring true," and the methods of exploitation of the so-called discovery stamped the whole thing as being a commercial enterprise. Fortunately, the senate refused to consider a resolution introduced at the request of Friedmann, which, if passed, would have permitted Friedmann to practice medicine in this country without the formality of obtaining a license in the usual way. Now comes the report that Friedmann has sold his secret for a large sum, a part of which is to be paid in cash and the balance in stock in a \$5,000,000 corporation that will establish sanitariums or places where the serum may be injected. It is quite evident that we are to have something allied to the notorious Keeley cures, and in all probability the method of exploitation will bear a strong resemblance.

WE continue to receive letters from the secretaries of county and district medical societies asking us why we do not publish reports of meetings when programs are furnished us. As stated in previous numbers of *THE JOURNAL* we pub-

lish all official transactions as prepared and sent to us by secretaries, but it would be manifestly unfair to publish, as having actually occurred, something that perhaps did not occur at all. As an instance of this we refer to a program of a county medical society that was not carried out at all in consequence of postponement, and to other programs which are only partly carried out. We are very anxious to secure official reports from any and all county and district medical societies, and will publish such reports in *THE JOURNAL*. To appear in the current number it is necessary that the copy shall reach the office of *THE JOURNAL* not later than the first of the month.

A CORRESPONDENT writes us as follows: "Now you've raised h—l by starting a discussion of the fee-dividing question, and the newspapers have gone one better by placing the subject before the public. Why stir up trouble?"

Good! We're quite willing to admit the soft impeachment if it accomplishes something for the honor of the profession; and as for the newspaper discussion of the practice of fee-dividing, we welcome it. The public suffers more than the medical profession from fee-dividing as ordinarily practiced, and that is a good and sufficient reason for a free discussion of the subject with the public as an audience. We hope that every newspaper in Indiana will have something to say about the traffic in the ills of humanity as carried on by the fee-dividers, for we believe that publicity is a short cut to a satisfactory solution of a problem which it seems cannot be solved by appealing to the honor of those who are prostituting a noble calling to commercial ends.

A PROMINENT surgeon who does not wish his name known has written us as follows: "In discussing this fee-division proposition do not lose sight of the fact that the surgeon is not the only one at fault, for not one surgeon out of ten who pays a commission for his cases does so because he wants to do it to get business or to protect the family physician, but because he must do so or fail to get the work. The average surgeon knows that fee-dividing as ordinarily practiced is wrong, even dishonest, and that the practice is a pernicious one bound to end in disaster, yet he is confronted by the greediness and dishonesty of the general physician who is afraid to charge what is justly due him for services rendered and who attempts to get the surgeon to collect his fee for him. Every surgeon would be willing to cut down his fees if necessary in order to give

the general physician an opportunity to charge a fee somewhat in proportion to that charged by the surgeon, but this sort of an arrangement the general physician does not want, as he fears that the public will not stand for it, and he has not moral stamina enough to make an attempt to secure his just due."

FEE-DIVIDING in any form that it is practiced is a dishonorable traffic in the ills of humanity. Followed to its logical conclusion it means the sale of the patient to the highest bidder. It can be nothing more than the rankest commercialism when general physicians seek a fee-divider, and usually the one paying the largest commission, to whom patients are to be referred. In a general way the question of ability is not considered, and the embryo surgeon without education, training or experience can and does do a large surgical practice if he pays well for the services of the members of the steering committee. The unfortunate patient who has placed his trust in his family physician is not consulted. He is a commodity for barter or trade, and he is sold like a cow or pig, for a price, which is usually the highest price in a given market. He is in luck, providing he has any money, if he isn't "double crossed" by being operated every time he gets sick, for it is surprising how many surgical cases some general physicians can scare up, and it is a safe bet that a surgeon always can be found to do the operating when the patient is willing to have an operation whether honestly advisable or not.

THE annual session of the American Medical Association will be held in Minneapolis, June 17 to 20. In accordance with the custom the committee on arrangements has provided a splendid list of entertainments, and the local medical profession of Minneapolis and St. Paul are prepared to act the part of host in a royal manner. Fortunately, the meetings are to be held on the University grounds, midway between St. Paul and Minneapolis, so that visitors can take their choice of the two metropolitan cities of Minnesota in the selection of accommodations. The section programs are all well filled with papers having the usual amount of practical and scientific interest to medical men, and all in all the session promises to be one of the most successful held within recent years.

The fact that the session is to be held in the Middle West is in itself sufficient to attract a large attendance from the central states and Indiana, while ordinarily a large contributor to

the attendance of sessions of the A. M. A., should this year approach the record made at Chicago. The Indiana physicians will of necessity go by the way of Chicago, and should not lose sight of the fact that two trunk line railroads, the Chicago, Milwaukee & St. Paul, and the Chicago Great Western, will run special trains to Minneapolis to attend the convention. Those who desire to reserve accommodations on these special trains are advised to write either E. G. Hayden, district passenger agent, C. M. & St. P. Ry., 907 Euclid Avenue, Cleveland, Ohio, or P. N. Butzen, district passenger agent, C. G. W. Ry., 62 W. Adams Street, Chicago, Ill.

THE JOURNAL's discussion of the fee-splitting proposition has brought out some very interesting information. For instance, several of the most prominent surgeons in the state have volunteered the information that they are opposed to fee-splitting because they think it is a pernicious practice, and morally wrong, but that they are forced to divide fees on account of the avarice of the general practitioner who demands compensation for referring his cases. As an evidence of this, specific instances are cited in which general practitioners have written letters in which they state that they have certain cases for operation providing a stipulated percentage will be paid by the surgeon doing the work. One general physician is bold enough to send a form letter to several surgeons asking what commission is paid for cases referred.

One surgeon frankly says that he has operated cases in which the patient paid \$150 to \$200 for the operation. The general physician collected the entire fee on the representation that it was what the surgeon charged, and then politely kept two-thirds of it as his share. The surgeon then remarks: "It is a hold-up game on the part of the general practitioner, but what are we surgeons to do when the general physician is not willing to charge fees himself but wants to increase his income by graft?"

Surely a more despicable and damnable practice never existed in the medical profession than that of fee-dividing, and if this spirit of rank commercialism is not wiped out root and branch every man in the medical profession is going to suffer the penalty, for the time will come when the public will stamp out the evil in a way which will not be to the liking of the medical profession.

WHEN the general physician desires to defend himself for accepting commissions for cases re-

ferred to a surgeon he falls back on the puerile argument that the surgeon charges too much for his services and that there is no reason why he should not divide with the physician who refers the case. They never stop to think that the acceptance of \$25 to \$50 from the surgeon (instead of from the patient) is a species of hold-up which does not look well for the doctor who pretends to be looking out for his patient by complaining about the fees that the patient has to pay for surgical attention. As a matter of fact, the services of the general physician are usually worth what he gets out of the case by dividing the fee with the surgeon. We contend that the general physician is too poorly paid, but if the general physician recognizes this fact he does not do anything to help himself, for he is either ashamed or afraid to charge what his services are worth, and in order to obtain additional compensation he deliberately holds up the surgeon. What he should do, and what the patient expects him to do, is to charge the patient direct and collect the fee from the patient direct rather than from the surgeon.

The average patient is not only willing, but anxious to pay just compensation for medical services rendered. The family physician will find that he can collect his fee from the patient without the slightest trouble whatever, whenever he earns it, and he earns it whenever he gives the patient good advice and attention in a professional capacity. To collect the fee secretly through a surgeon is an admission of weakness which has no place in the honorable practice of medicine.

IN our judgment there can be no logical defense of the fee-dividing practice. There is absolutely no reason why the surgeons should collect the fees of a general physician, or pay the general physician for favoring him. The general physician is in the patient's employ and presumably looking out for the patient's interests. Therefore, he should be paid by the patient and entirely independent of any fees paid to anyone else. The services are valuable in proportion to the skill and responsibility required, and the general physician should place a proper estimate on his work and secure corresponding compensation. If the services are continued during and after the operation the compensation should be proportionately greater. The bill, whatever it may be and for whatever services, should be presented by the general physician to the patient, and wholly independent of any bill that may be presented by the surgeon. We assume that the services rendered are worth as much as the gen-

eral physician would receive from the case if he expected some or all of his compensation to come from the surgeon in the shape of a secretly divided fee. Under these circumstances we do not believe that once out of ten times the patient will raise the slightest objection to the payment of the bill. The surgeon can well afford to exhibit a sense of fairness by arranging to get his fee at the same time or after the general physician is paid, and under any circumstances he should make his fee consistent with the patient's ability to pay both surgeon and general physician. Each attending physician should present his bill for services independently, and, on the other hand, the patient is entitled to know just what he is paying for and that he has not been the subject of traffic. No other arrangement permits of fair and honorable treatment of the patient and relieves the attending physicians of the suspicion of crookedness.

THE "remarkable" Friedmann serum, discovered by Dr. F. F. Friedmann, a German physician, and heralded broadcast throughout the land as a positive cure for consumption, caused the death of a patient to whom it was administered a few days ago in Berlin, Germany. An investigation by a number of doctors was immediately started.

The Friedmann serum, the contents of which he has steadfastly refused to reveal to the medical profession, contains live tuberculosis germs. When administered to monkeys or other animals of the lower form of life, the serum acts in deadly fashion.

The case under discussion is that of a patient in Berlin, Germany, who was given an injection of the serum, at the point where he was affected with tuberculosis. The patient, an American, died on the street from a hemorrhage. A post-mortem examination revealed startling facts. The muscle into which the serum was injected was enlarged, and showed fresh miliary tubercles, while none were present in the glands on the opposite side of the body.

A letter to Dr. Edwin Walker of this city from an eminent physician in Cincinnati, Ohio, who was one of the investigating committee, and giving the details of the investigation, follows in part:

"A patient (American) under the Friedmann treatment died on the street of a hemorrhage.

"The post-mortem showed a general miliary tuberculosis. On microscopical section (I saw the specimen) there were fresh miliary tuber-

cles in the brain, liver and spleen. Also the muscle (buttock) where the injection was made showed fresh miliary tubercles, which you know is a more or less rare condition as a primary affair. The glands (lymphatic) on this same side, in immediate anatomical relation, were enlarged and tubercle bacilli could be and were demonstrated in these glands, while they were absent from the glands on the opposite side.

"Everything pointed to the site of the injection as the starting point of the general miliary infection."—*Evansville Journal*.

DR. FRIEDMANN'S course, since he landed on our shores, has been one of constant evasion. His claims for his treatment rest solely on his own statements. He has not qualified as a physician in New York or Rhode Island. He has failed even to answer the letters of the officers of the Public Health Service. He has persistently refused to furnish any proof of the claims made for his preparation. Now comes the most startling development of all. According to newspaper reports, branch "institutes" are to be established in every state by a syndicate, formed by Dr. Friedmann and his promoters. Each "institute" will make its own serum or culture, or whatever Dr. Friedmann's remedy is. Thus, by a technicality, he will evade the federal law which, for the purpose of protecting the public against impure and dangerous serums and vaccines, places all these preparations which are subject to interstate commerce under the control of the Public Health Service. State laws are slow of enactment and slower of enforcement. This plan will sweep aside the strong arm of the Public Health Service, which otherwise would protect the unfortunate consumptives. It will allow the promoter to make and sell to the victims of disease, at any profit he sees fit, a secret product, the value of which rests entirely on Friedmann's unsupported statements. Suppose an American physician went to Berlin with unproved claims for some new treatment of consumption. Suppose he refused to produce proof of his statements, refused to submit his remedy to other scientific men, attempted to evade the German laws, disregarded German officials and, finally, through a legal technicality, planned to bleed the German consumptive of his scanty means by selling him a preparation of unproved value and possible danger? Would the German people permit their sick to be the victims of such a scheme? *The Journal of the American Medical Association* asks: Why did Friedmann come to the United

States? Because, says *The Journal*, we have in Europe the reputation of being "easy." Because this country is supposed to be the home of the get-rich-quick promoter. The American people have no respect for the man who uses legal technicalities for profit or to escape punishment. Will the American public and the American press tolerate this attempt to make our unfortunate consumptives a source of gain for a rapacious foreigner, promoting a remedy of unproved merit in violation of the spirit of our laws?

UNDER the title "The Financial Obligation of the Specialist," in the March number of the *Indianapolis Medical Journal*, Dr. Jewett V. Reed presents a defense of fee-division which no doubt is considered as settling the question from a commercial standpoint, but the effect of the argument is lost when the plea is made that fee-division should be a secret arrangement. An instance is cited where a patient expressed satisfaction when quoted a fee of \$200 for operative attention, but he later objected to the fee when told that the family physician was to receive \$50 out of it. The bill was compromised by the acceptance of \$150.

A worse admission of weakness could not have been made. Either the general physician earned or did not earn the \$50 which the surgeon attempted to obtain for him. If he earned the fee then there should have been no compromise, and as a matter of principle the fee should have been collected. If he did not earn the fee then he was not entitled to the amount demanded. Dr. Reed's boasted consideration for the general physician did not permit him to urge the general physician to obtain, by law if necessary, just and adequate compensation, and by so doing help to establish greater consideration on the part of the public for services rendered by the general physician, and at the same time instill more self-respect in the mind of the general physician. O! no. Dr. Reed in effect says, "if you can't get your fee by fair means we will get it by foul means. My fee is legitimately and honestly \$150, but I will resort to foot-pad methods and hold up the patient to the tune of \$50 for you and let him think that I keep the entire amount." As a climax the patient is really let off with the inference that the services of the general physician are worth little or nothing. It is perfectly plain that no services of the general physician will be considered of any value if such episodes continue to be repeated.

In this number of *THE JOURNAL* we publish a letter from a general physician who is opposed to fee-dividing, and who frankly states that he has never had any difficulty in obtaining his fee when the bill was presented directly to the patient. We can assure Dr. Reed that there are a great many capable and conscientious general physicians who do not have the slightest difficulty in obtaining satisfactory compensation for services rendered in surgical cases, and who would spurn the offer of a surgeon to divide the fee. As a matter of fact, we do not believe that Dr. Reed or any other surgeon is obliged to resort to the secret division of fees in order to secure just and adequate compensation for the general physician. We do not believe that it is ever necessary for a man to resort to trickery in order to secure what is justly his due. With the fee-splitting surgeon it is a question of "get the business," and with the general physician who accepts split fees it is a question of getting the money unfairly and by methods of which they should be ashamed.

We are pleased to note that in the same number of the *Indianapolis Medical Journal* in which Dr. Reed's article appears the editor takes occasion to condemn fee-splitting.

LAST November Friedrich Franz Friedmann read a paper before the Berlin Medical Society announcing that he had succeeded in producing a preparation of tubercle bacilli by which he claimed to be able to produce curative effects in all but the most advanced cases of tuberculosis, and to immunize children against the disease. Immediately there appeared in the newspapers of this country, and to a less extent in those abroad, sensational accounts of this new treatment. It was lauded as a discovery that was to banish tuberculosis from the world. This was the beginning of a most remarkable and disgraceful newspaper exploitation. This has been kept up until the present time. As one looks back one is forced to the conclusion, says *The Journal of the American Medical Association*, that, from the beginning, it was a premeditated, well-arranged scheme of free advertising. The press agents of this obscure bacteriologist certainly have done their work well.

Until it was announced that Friedmann was coming to this country, the medical profession was generous in ascribing to newspaper enterprise the advertising he was receiving; but as soon as it was announced that he was coming for

the million dollars offered by a wealthy philanthropist, many became suspicious. He was a registered physician in Germany, with the right to use his remedy there. The German government fully secures to a discoverer by patent a monopoly of the financial benefits to be derived from his discovery. Germany certainly has as many sufferers from tuberculosis, in proportion to its population, as the United States. If Friedmann has a remedy such as he claims, he could have secured in his own country financial returns which would have made him rich. In spite of this, he left his own land and came here; and his actions since he has been in this country have been such as to destroy any confidence which thinking physicians may have had in the man.

Now it is announced that a deal has been consummated through which he is to get a large sum of money immediately, with great prospects for the future. It is safe, therefore, to conclude that he has realized the ideal he had in mind when he landed on our golden shores. Greeted with courteous open-mindedness at first, he seems to have been received with open arms by shrewd and not too scrupulous promoters who were eagerly watching for a chance to reap a harvest in partnership with him. Unless there is some totally unforeseen governmental action, or unless some well-nigh impossible wave of skepticism sweeps over the land, it looks as though the dollars to be wrenched from the wasted hands of the tuberculous would make a harvest which would exceed the reappings of all previous efforts to bunco the sick.

The American medical profession has listened to the claims of Friedmann with an open mind. It has waited patiently for him to prove his claims and to show his real intentions. To wait longer is now unnecessary. The most pressing duty now before physicians is to lay the facts before the public through the agency by which Friedmann has so shrewdly secured the free advertising, from which he is preparing to reap his golden harvest. A united movement to warn the people on this important question will meet with a cordial response from this same agency—the American press.

We can disregard the fact that the remedy is a secret one; we can ignore the dishonorable conduct of Friedmann as a physician; we can even forget the possible danger that lies in his treatment; we can let all this pass. But one fact stands out clearly and should be emphasized: Friedmann has presented no proof, nor evidence, that he has found a cure for consumption.

DEATHS

LEONARD BYERS, M.D., aged 63, of Seeleyville, is dead of pneumonia.

WILLIAM H. SAMPSON died at his home in Brookston from paralysis.

WILLIAM R. DENBO, M.D., aged 65, died at his home in Mauckport. He had practiced medicine forty years.

JOHN WOOD, M.D., a veteran of the Civil War, was struck by a passenger train at Paoli, April 18, and died a few hours later from the injuries.

WILLIAM C. HOOVER, M.D., Rush Medical College, 1869; died at his home in Haddon Township, Vigo County, Ind., about April 24, from senile debility, aged 83.

BENJAMIN W. PRATT, M.D., aged 54 years, died at his home in Goodland April 13, 1913, after less than a week's illness with pneumonia. He was a graduate of the Ohio Medical College, and had practiced medicine for twenty-one years.

HENRY M. CONNELLY, M.D., Medical College of Indiana, Indianapolis, 1882; until 1900 a practitioner of Flatrock, Ind., and since that time a resident of Shelbyville, died at his home in that city, April 20, from cerebral hemorrhage, aged 62.

J. L. REEVES, M.D., one of the oldest and best known practicing physicians in Randolph County and Parke County died about April 8, 1913. He began the practice of medicine in New Pittsburg in 1854. In 1861 he enlisted in the Fortieth Ohio, as lieutenant of Company F, and was promoted to captain and major.

CHARLES ALBION DAUGHERTY, M.D., a member of the Board of Trustees of the American Medical Association, ex-president of the Indiana State Medical Association, and one of the best known and most beloved physicians in Indiana, died at his home in South Bend, April 23, from malignant disease involving the gall-bladder, head of the pancreas and common duct.

Dr. Daugherty was born at Wooster, Ohio, Nov. 23, 1850. He was 62 years of age at the

time of his death. He was educated in the Mishawaka High School, and later attended Hillsdale College at Hillsdale, Mich., and then taught school in St. Joseph County for several years. He studied medicine under Dr. J. H. Grimes of Mishawaka, and later attended the Bennett Medical College of Chicago, from which institution he graduated in 1873. He began the practice of medicine in Lakeville where he remained four years. Subsequently he attended the Indiana Medical College, then the medical



The late Charles Albion Daugherty, M.D.

department of Butler University, and was graduated from that institution in 1879 and located in South Bend immediately thereafter where he soon attained a reputation for skill, care and thoroughness. In 1883 he became associated with the late Dr. F. M. Sawyer, and in 1904 Dr. H. M. Miller was employed as an assistant, and later entered the partnership which continued until the death of Dr. Sawyer, since which time the firm has been known as Drs. Daugherty and Miller.

Dr. Daugherty was a member of the American Medical Association for many years; for six years

was Councilor of the Thirteenth Indiana District Medical Society, and was a charter member of the St. Joseph County Medical Society. For many years he had been on the medical staff of Epworth Hospital (South Bend), and lectured in the training school for nurses, and for three years previous to his death he acted as the medical director of the hospital. He was also surgeon for the Northern Indiana Railway, district surgeon for the Grand Trunk System, and local surgeon for the Vandalia Road. For twelve years he was a member of the Board of Education of South Bend, and at one time was its president. He was a member of the Indiana Club, Round Table, the Knife and Fork Club and the Independent Order of Odd Fellows.

Politically Dr. Daugherty was a Democrat. Though active and ready to bear his share of the burdens with time or money, he never appealed for office.

Nearly two years ago he began to suffer from symptoms which he referred to the gall-bladder. Dr. A. J. Ochsner of Chicago was consulted early in the spring, and an exploratory operation was advised. The operation revealed the existence of an inoperable carcinoma. The incision was closed and Dr. Daugherty, after a short time in the hospital in Chicago, returned to his home in South Bend to await death.

From an editorial in the *South Bend Times* we give a quotation which every doctor who knew Dr. Daugherty will endorse: "The medical profession was proud to call Dr. Daugherty one of its leaders. But he was more than a good doctor. He was interested in many things, was profoundly interested in his country, and in every big movement designed to benefit it. He was a big, kindly, charitable man, and was alert to every interest that touched mankind. In his work as a member of the school board he gave time, intelligence, zeal and broad-mindedness to the big task of building up the efficiency of our schools. He was more than a good doctor. He was a good citizen, and one who made better the men with whom he came in contact."

In the death of Dr. Daugherty the medical profession has lost one of its noble characters, and one of its most earnest and conscientious practitioners. Those who knew him loved him, and many men will long remember his kindly advice, wise counsel and steadfast friendship.

Dr. Daugherty is survived by his wife and two daughters, Mrs. Frank Hoffman of Chicago, and Miss Helen Daugherty.

NEWS NOTES AND PERSONALS**INDIANAPOLIS**

DR. DE FORREST WALES has been to his former home, Boston, Mass., on a business trip.

DR. SUDRANSKI, Greencastle, Ind., attended the regular meeting of the Indianapolis Medical Society, Tuesday, April 22.

DR. FORD is out of St. Vincent's Hospital, having been confined with a superficial abscess of the leg, following an injury.

DR. BONNIFIELD, Cincinnati, was a recent guest of Dr. Thomas Kennedy, attending the local medical society Tuesday, April 22.

DR. A. C. KIMBERLIN and wife spent a week in the latter part of April at the Home Lawn Sanitarium, Martinsville, the object being much needed rest.

DR. FRANK FOXWORTHY was commissioned by the governor to assist in a health survey in the flooded districts of the Ohio and adjacent districts of Southern Indiana.

THE State Board of Health met in regular quarterly session April 11, and organized by electing Dr. T. Henry Davis, president, and Dr. James S. Boyers, vice-president.

DR. W. F. WALSH was seriously injured Saturday, April 19, when his machine collided with a street car. A basal-skull fracture is feared, and at this writing the outcome is uncertain.

THE sixty-eighth session of the general assembly passed a number of laws relating to the public health, strengthening the health authorities very materially. The appropriations of the State Board of Health were increased \$17,500.

APRIL 14, the appointing board composed of the governor, secretary of state and auditor of state met and appointed Dr. H. H. Sutton, Aurora, Ind., a member of the State Board of Health, to succeed Dr. F. A. Tucker, and appointed Dr. James S. Boyers, Decatur, Ind., to succeed himself. Both gentlemen were appointed for four years.

At the request of State Health Commissioner Hurty, Governor Ralston ordered the ambulance and hospital corps of the National Guard under command of Captain Archibald Chittick to go to Peru and aid in sanitary work. Mayor Krutzer of Peru and the relief committee strongly praised the assistance given by Surgeon de Valin and Captain Chittick and his corps of men.

THE Board of Health and individual physicians have urged the necessity of the use of anti-typhoid vaccination as a prophylactic measure following the recent flood. About 5,000 persons were vaccinated, probably two-thirds by private physicians. It signifies progress when people individually are willing to avail themselves of, and pay for preventive medicine. Incidentally, the board reports only nine cases of typhoid fever in the city, which is considered rather low, especially following the favorable typhoid conditions present.

A PROPOSED city ordinance, which has for its object better sanitary conditions, is having rather rough sledding in the city council. The ordinance provides for the thorough screening of outhouses used for toilet purposes, and also sewer connections for such houses in cases where property abuts sewer connections. Opposition appears to come from two sources, first, those who fail to see the necessity for such screening, and second, those who own the property for rental. The Board of Health, backed by the Chamber of Commerce, is making a hard fight for its passage. Another ordinance of importance proposes to make the police sanitary officers with full authority during the entire year of sanitary inspection of all property in their districts.

SURGEON-GENERAL BLUE of the U. S. Public Health Service promptly tendered assistance to the state of Indiana on account of the destructive floods. The assistance was accepted by State Health Commissioner Hurty, and Surgeons J. O. Cobb and Hugh de Valin and Dr. Carl Michel were promptly ordered to report to Dr. Hurty at Indianapolis. Surgeon de Valin was assigned to sanitary work under the City Board of Health to help in the relief of the awful condition existing in West Indianapolis. Dr. Michel, being a laboratory man, was assigned to laboratory work. Surgeon Cobb visited Brookville, advised there with City Health Officer Squires, giving his aid for a short time and then was assigned to Terre Haute. The health authorities of Indianapolis

having secured sufficient home help, Surgeon de Valin was released and sent to Logansport and Peru, and at both these places he took up the work of sanitation and prevention of diseases in conjunction with the local health officers. At Peru, on account of the indisposition of the health officer, Dr. Malsbury, Surgeon de Valin took complete command.

THE local medical community has had more than one occasion to view the nauseating spectacle of one of its members exploiting the mistakes of a fellow practitioner, by becoming the willing and apparently anxious prosecuting witness in malpractice suits. If current rumor can be given any credence, a recent instance is a most flagrant violation, and bears the earmarks of an oriental finesse, not hitherto approached by a class of men who gladly seek the opportunity of personal aggrandizement at the expense of a colleague's mistakes. No man can excuse himself by professing a regard for the rights of the public. If such a plan were relentlessly pursued by all physicians, the profession and all it stands for for the public good would be wrecked within a year. When a surgeon does all he can to skillfully correct the blunders or mistakes of a fellow practitioner, and restores the patient to health, he has discharged his full duty to the public. It sometimes happens that unimpeachable facts must be told at the proper time and to proper authorities, but it is a far cry from the man who takes such a stand and the one who deliberately sets about collecting evidence for the sole purpose of convicting a colleague. Is it not about time for our medical society to officially acquaint itself of the facts, and if found true, drop such men from its membership?

THE new laws relating to the public health are:

S. B. 130 which provides for establishing public hospitals and training schools for nurses, supported by public taxation for care of tubercular persons in any county of the state. A petition signed by 200 resident freeholders, 150 of whom shall not be residents of the city or town where the hospital is to be located, must be presented to the board of commissioners, who may levy a tax not exceeding two mills on the dollar and issue bonds for the purchase of grounds and the erection of the hospital building.

S. B. 277 restricts the sale of cocaine, morphin and other habit-forming drugs. The enforcement of the bill is laid on the State Board of Pharmacy. It provides that the habit-forming

drugs which are named shall not be sold except on the prescription of a physician, and that no such prescription shall be filled twice, and that a careful record of such prescription shall be kept. Persons selling or dealing in such drugs are required to report each month to the secretary of the Board of Pharmacy all sales made in the preceding thirty days.

S. B. 107 authorizes the school trustees of cities of 10,000 and less to establish, maintain and equip public playgrounds to be used by the children in summer vacation periods in such cities.

S. B. 494 relates to the construction of school buildings. This law amends the sanitary school-house law of 1911 and provides that no one shall establish a livery stable, horse, mule or cattle barn used for breeding purposes, or any noise-making industry, or any unhealthful condition within 500 feet of any school building, school site or school grounds. A slight change is made in regard to the method of ventilating which does not materially affect the former law. Open-air schools are made legal by this law.

S. B. 118 is the new housing law. This is purely a public health measure and its enforcement devolves on the State Board of Health. It provides that all future tenement buildings shall be built to prevent over-crowding, good ventilation and lighting to be secured and, where available, water and toilet facilities on each floor.

S. B. 556 institutes the Lake County Sanitary District. This is for the purpose of furnishing sewerage and water-supply to the cities bordering on Lake Michigan. The law creates a board of five trustees who shall have power to levy taxes and build sewers.

S. B. 171 was called the "Rat Bill" and was introduced and gotten through by Senator Oscar Ratts of Paoli. The provisions of the bills are numerous and they aim at the extinction of rats, for as the bill states, these animals carry disease and are very destructive.

H. B. 221, which requires that all plans for the construction of any mausoleum, vault or structure built to contain twenty or more deceased human bodies must be first approved by the State Board of Health.

S. B. 67 requires the cleaning of cans and receptacles used for the transportation of milk, cream and ice cream by the consignee before returning to the shipper for further use by him.

S. B. 96 provides for the organization of local forestry associations to acquire and control lands for forests which shall not be sold or incumbered, but shall be held in perpetuity for forestry purposes for the benefit of the public.

S. B. 279 amends three sections of the act of 1907 for collecting records of births, deaths, marriages, etc. The law requires hereafter that reports of deaths occurring outside of cities and towns are to be made to the health officer nearest to the place where the death occurs. Persons performing marriages are required to report all marriages performed by them within three days after their occurrence to the clerk of the circuit court of the county wherein the marriage license was issued, instead of where the marriage occurred. The law requires that the State Board of Health shall, on request, furnish any applicant a certified copy of the record of any birth or death registered under the provisions of this act, and such copy of the record of a birth or death when properly certified by the secretary of said board to be a true copy thereof, shall be prima facie evidence in all courts and places of the facts therein stated.

H. B. 515 increases the powers of the Board of Health of Indianapolis by authorizing it to acquire, lay out and improve land for public hospitals, dispensaries, etc., to manage the same, to appoint a city sanitarian and control his action, and lease or sell the property of the city under the control of the board, and use the proceeds, with such gifts and bequests as the board may receive, for the purpose of erecting and maintaining such hospital. The law further empowers the board to lay a tax of 10 cents on each \$100 for the use of the board for such purpose.

WHEN the Indianapolis Medical Society voted to table a clean-cut amendment to the constitution that had for its object the condemning of the practice of fee-splitting on the part of its members, and then voted to refer the entire question to the council, it put the matter squarely up to that body, despite the fact that in the light of its previous action the society laid itself liable to the suspicion that it was attempting to bury the question. There can be but little doubt that some and perhaps many hoped that this would be its fate. We do not believe, however, that the council will take this view of the matter. We believe that they will accept this responsibility in good faith and after due consideration will make a report embodying recommendations that represent their best judgment. Let no one deceive himself with the thought that the council has an easy task in this matter. There are those who, granting the iniquity of fee-splitting, declare that as far as the Indianapolis society is con-

cerned it is entirely a question of operability. The diagnosis is granted, but the possibility of conserving an intact society is doubted. As to the facts supporting such argument we are not informed. The evil practice is probably not greater nor less in Indianapolis than any other city of its size. But this is, in our opinion, beside the question as far as the duty of the council is concerned. When a moral question is before it, there can be but one answer. If the integrity of the society is threatened because its official representatives courageously stand for what is right and just, then the society is indeed in sore straits. It is claimed by some and with a considerable degree of logic that it is not right for the local society to forbid its members to rebate, when it has in many cases control over only one party to the transaction. For it must be remembered that it takes two to split a fee, and the general practitioner is just as serious an offender as the specialist. If this argument has sufficient weight, then the council might so report, and in addition to other recommendations advise the appointment of a committee to take up the fight in the state organization. Certain it is that the eyes of the seeing and knowing part of the medical profession of Indiana are focused on Indianapolis to learn what it is going to do on this question, and on the outcome rests in great measure the respect of this part of the profession.

GENERAL

DR. D. V. McCLARY of Dale is taking a post-graduate course in a medical college in New York.

DR. UNION T. TAYLOR of Newberg was married to Miss Janet Christine Mitchell of Princeton, April 10.

DR. JOHN D. STEWART of Indianapolis was married to Miss Olga Petrova at Kansas City, Mo., on March 31.

DR. JAMES V. NELSON and wife of Logansport have recently returned from a six months' pleasure trip abroad.

DR. JOHN GILPIN of Fort Wayne lectured at the Central School Building in Bluffton on May 7, his subject being "Medical Inspection in Schools."

DR. W. J. CARTER of Marion has returned to his home from a trip to Hot Springs, Ark., where he has spent the last three months.

DR. JAMES STANTON and wife of Logansport have recently gone to New York City where the doctor expects to take a postgraduate course in a medical college.

MRS. EMMA EDDY, formerly of Elkhart, who died at Los Angeles, Cal., several weeks ago, has bequeathed \$250 to the aid of persons afflicted with tuberculosis.

MRS. MELISSA COOPER, widow of Dr. B. W. Cooper of Greenfield, is dead. Mrs. Cooper gave the city the lot on which the city library was built several years ago.

THE Gary Medical Society has decided to establish a baby hospital, day nursery and probably a free drug dispensary where medicines can be obtained by the needy without cost.

THE fifteenth annual meeting of the American Proctologic Society will be held in Minneapolis, Minn., June 16 and 17, at the Hotel Radisson, which is also the headquarters of the society.

DR. A. C. McDONALD, founder of the McDonald Hospital of Warsaw, Ind., sailed the last of April for Europe. He intends to take a two months' course in surgery and medicine in Vienna.

THE Evansville Dental Society is planning to have a free dental clinic. If the dental hospital is established poor children who are unable to pay to have their teeth treated can have it done for nothing.

THE Fort Wayne and Allen County Anti-tuberculosis Society has selected a site on the County Farm for the establishment of a shack colony for tuberculosis to accommodate about twenty patients.

THE tuberculosis camp committee of the Associated Charities of Anderson has arranged to erect cottages on the pesthouse farm east of the city, for the benefit of tuberculosis patients during the summer months.

THE discovery of a serum for the cure of pneumonia has been made by the Rockefeller

Institute at New York. Dr. Bosler at New Castle has been treating horses affected by the disease; out of seven bad cases he has saved five.

DR. R. A. BALDRIGE, 77 years of age, who was formerly engaged in the practice of medicine at Farmersburg, and now resides on a farm east of that place, and Mrs. Ellen L. Cox of Rosedale, 56 years of age, were married at Terre Haute, May 1, 1913.

DR. WM. H. SHORT was chosen president of the LaGrange County Medical Society for the coming year, at its recent meeting at the Herendeen Inn. Dr. Hostetler was elected vice-president, and Dr. A. A. Wade of Howe was elected secretary and treasurer.

THE Clay County Medical Society passed a motion in a recent meeting favoring the building of a hospital in the very near future, and a committee was appointed to meet with the Clay County Hospital Association to further consider the plans for building a hospital.

THE annual meeting of the Twelfth District Medical Association was held in Fort Wayne, April 10. Dr. J. W. McKinney of Bluffton was elected president, Dr. T. J. Creel, Angola, first vice-president; Dr. W. E. Smith, Decatur, second vice-president, and Dr. L. T. Rawles, Fort Wayne, secretary.

THE Greenwood Sanitarium at Greenwood, which has been idle for a number of years, was sold to Dr. J. A. Craig of that city, recently. The building will be entirely overhauled and remodeled at a cost of about \$10,000 and the sanitarium which Dr. Craig expects to open will be strictly up to date.

DR. FRANK B. WYNN was presented with a loving cup by the officers of the Indiana Medical Society at the meeting of the seniors of the Indiana University School of Medicine in Indianapolis, May 8, because of his efforts in collecting pathological specimens obtained in autopsies by physicians over the state.

THE Indiana State Nurses' Association convention was held in Fort Wayne the last of April. About two hundred nurses were in attendance. Clinics were held at the St. Joseph and Lutheran

Hospitals, and an afternoon was spent at the Indiana School for Feeble-Minded Youth at a clinic conducted by the head of the school, Dr. Bliss. Miss Ina Gaskill of Indianapolis was selected as the association delegate to the national convention which is to be held at Atlantic City some time in June. She is the secretary of the Indiana association. Miss Dora Burr of Terre Haute was selected as the alternate.

SINCE April 1, the following articles have been accepted for inclusion with New and Non-official Remedies:

Coli Vaccine, Lederle Antitoxin Laboratories.

Gonococcus Vaccine, Lederle Antitoxin Laboratories.

Pneumococcus Vaccine, Lederle Antitoxin Laboratories.

Staphylococcus Vaccine, Lederle Antitoxin Laboratories.

Staphylococcus Albus Vaccine, Lederle Antitoxin Laboratories.

Staphylococcus Aureus Vaccine, Lederle Antitoxin Laboratories.

Typhoid Vaccine, Lederle Antitoxin Laboratories.

Typhoid Vaccine for Prophylactic Treatment, Lederle Antitoxin Laboratories.

Streptococcus Vaccine, Lederle Antitoxin Laboratories.

CORRESPONDENCE

FEE-SPLITTING

In the March number of *THE JOURNAL* Dr. Miles F. Porter, Fort Wayne, suggested that a vote be taken on the subject of fee-dividing. Accordingly we herewith publish several letters offering expressions of opinion.

The subject is of interest and is deserving of consideration for several reasons. The "Principles of Ethics" declares that fee-splitting is unprofessional, and a very large number of medical men believe that the practice is morally and legally wrong. Many medical societies have taken action on the subject similar to that taken by the Western Surgical Association, which not only condemned fee-splitting but went on record to the effect that the association would be pleased to receive the resignation of any member who feels that he is not willing to abstain from the practice of fee-splitting in any form. The Indiana University School of Medicine, through

its board of trustees, on Feb. 9, 1910, passed a resolution concerning unethical conduct which is as follows: "Any member of the faculty or teaching staff of the Indiana University School of Medicine who shall be shown to be guilty of fee-splitting, paying a commission for patients referred, or other violation of Article 6, Section 4, of the 'Principles of Ethics,' shall be considered as having so impaired his usefulness as a member of the faculty or teaching staff of the school of medicine by such unethical example to students as to make his further connection with the university undesirable." Sixty-six members of the faculty and 111 members of the teaching staff of the Indiana University School of Medicine through their signatures approved the resolution.

Following the publication of Dr. Porter's letter suggesting a vote on the fee-splitting proposition *THE JOURNAL* has received the following communications:

INDIANAPOLIS.

To the Editor:—Fee-splitting is not only a dishonest practice, but one that grossly destroys the higher ideals of the individual, as well as the medical profession as a whole. To merely deplore, without definite action, to relieve and remove the fundamental cause, is to my mind mere mockery. I hope you will continue to prosecute the good work in correcting this evil.

Sincerely yours,

A. C. KIMBERLIN.

INDIANAPOLIS.

To the Editor:—I am glad to put myself on record as unalterably opposed to fee-dividing. I believe it is one of the great evils of the medical profession to-day for which we will have to pay severely in the near future; and what is even more important, it is not at all to the best interest of the patient.

Sincerely,

CHAS. P. EMMERSON.

INDIANAPOLIS.

To the Editor:—I wish you would add my name to Dr. Porter's list of "Anti-Fee-Splitters."

WM. N. WISHARD.

EVANSVILLE.

To the Editor:—There will never be a better time to place on record those who do and do not favor "fee-splitting" and let the public know just how every man stands.

The open advocates of this practice cannot complain, for if they are right, they have nothing to conceal.

A tuberculous patient of mine needed treatment at a sanitarium. I started to write a letter to the Rockwood Tuberculosis Sanitarium, at Danville, Ind., and was reminded that a circular had been received from this institution. In looking it over I found the following:

"As a special inducement to physicians a semi-annual extra dividend will be guaranteed for their interest in and support of the institution.

"This extra dividend will extend to each physician who holds stock in the institution and will consist of 5 per cent. of the income derived from each patient referred to the sanitarium by the stock-holding physician. In other words, whenever a physician, holding stock in Rockwood sends a patient to the sanitarium, 5 per cent. of all the money that that patient pays in will be repaid to that physician."

I did not write the letter of course, for if the patient had learned that commissions were paid, he might have thought that I had received a part of his payment.

We cannot mix in such matters, so let us have the line drawn; let those who are looking for rebates learn who are giving them and let the public know both.

Put me down opposed to "fee-splitting."

Very truly yours,

EDWIN WALKER.

TERRE HAUTE.

To the Editor:—Dr. Miles F. Porter has started the ball rolling in the right direction. It is high time that the fee-splitting parasites should be exposed not only to the profession but also to the public. Put me down, as I have always been an anti-fee-splitter.

Respectfully,

L. J. WILLIEN.

SOUTH BEND.

To the Editor:—I am convinced that the present situation of fee-splitting and commission-giving is the most deep-seated and virulent canker that the medical profession as a whole has to deal with to-day. If not wiped out, it can lead to nothing but distrust, dishonor and disaster in our profession which is, and should be, so basically humanitarian and honorable.

"The laborer is worthy of his hire." He is worthy of all his hire. And, therefore, why should I take part of the oculist's or laryngologist's fee when I send to him a cataract operation or an adenoid operation which, for instance, I am not equipped to do, or am too lazy to equip myself to do, or have never chosen to take an

operative interest in because my interests lie in other directions, or yet because my skill does not tend in that way? If I make either a tentative or an absolute diagnosis in such a case, I have a right to charge and should charge my patient for my services, and he should be made to understand my right in the matter. But what right have I to be a distributor of unfortunates on the basis of, say \$25 or \$50 to some so-called specialist who has the nerve to make such an offer for patients? How can such a consideration bring me to send the patient to the best possible man in my vicinity for that particular case?

On the other hand, the man who does the operation and charges a proper fee for his work does not feel like giving up a part of it for patients referred; it is nothing short of sand-bagging to be asked for a division. Moreover, if the same amount of nerve were displayed toward the patient by the family physician that he displays toward the surgeon in the case, he would probably get a reasonable compensation for whatever services he renders from the patient direct.

I try to be unselfish about this, and feel toward the man to whom I send a case just as I do toward him who refers a patient to me, always remembering that usually none of us get too much for our work, but likewise that it is up to us to properly charge our patient for our work and not the one who honestly earns what the patient pays for an operation.

CHAS. STOLTZ.

FORT WAYNE.

To the Editor:—Fee-splitting in any guise curses twice; it curses him that gives and him that receives. I am against it.

Yours truly,

K. K. WHELOCK.

INDIANAPOLIS.

To the Editor:—I regard fee-splitting as nothing more than stealing from a patient. If I am not able to collect the money due me from my patients I do not want anyone else to do it for me. Whenever I refer a case to a surgeon or anyone else it is because I need help and I expect them to be paid accordingly. My rule is to render my bill separate from a surgeon or consultant. So far I have never heard of any complaint from one of my patients.

Very truly yours,

H. S. THURSTON.

INDIANAPOLIS.

To the Editor:—Please enroll me with the "Anti-Fee Splitters." In my opinion advertising

is a professional virtue compared to fee-division in any form.

Very truly yours,
HOMER R. MCKINSTRAY.

INDIANAPOLIS.

To the Editor:—I am shocked and amazed at the stories told about some of the members of our profession concerning the splitting of fees and bidding for cases through that means. Nothing is more belittling and degrading than to cultivate such practice. It is a lack of honesty and business sense. I hope that at least some of the fee-splitters can be exposed.

Respectfully, L. C. CLINE.

INDIANAPOLIS.

To the Editor:—I am opposed to fee-splitting; first, because it is morally wrong, and, second, because it is responsible more than any other single factor for the presence of the incompetents in the ranks of the specialists.

Very truly yours,
M. N. HADLEY.

RICHMOND.

To the Editor:—I am decidedly opposed to any fee-dividing. The patient in all cases ought to know exactly what the surgeon, the assistant and the anesthetist receive.

Sincerely yours,
DAVID W. STEVENSON.

FORT WAYNE.

To the Editor:—You are already aware of the fact that I am opposed to fee-dividing or the giving of clandestine commissions; in fact I am opposed to any method other than the open and above board, honest treatment of the patient and his physician by the surgeon. If a vote will wipe out the practice of fee-dividing we should have voted before this time. I hope to be registered as one of the early ones to respond to the suggestion made in THE JOURNAL.

Sincerely yours,
CHAS. E. BARNETT.

EVANSVILLE.

To the Editor:—I saw with pleasure the article against fee-splitting in the March number of THE JOURNAL. I was always opposed to this undignified practice. Dividing the fee means simply robbing the patient, for the surgeon does not divide his usual fee with the practitioner but charges the victim 50 per cent. more. Only once

in thirty-one years has a surgeon proposed to me to divide the fee if I would send my patients to him. I do not think he will do it a second time, for what I told him was not to his liking.

Very truly yours,
ERNST H. C. HEUSLER.

CRAWFORDSVILLE.

To the Editor:—In thirty-eight years I have never given nor received a split fee, and am wholly opposed to it. It is unprofessional among doctors and not just to the patient. The patient has a right to know who gets his money and thereby knows whom to hold responsible for unsuccessful work, if such there be. If "split fees" were stamped out the specialist probably could charge less fees and in the long run would be just as well off.

Sincerely yours,
J. R. ETTER.

CULVER.

To the Editor:—Kindly record my name among the "anti-fee-splitters." Sink or swim, survive or perish, I give my heart and my hand to this vote.

B. W. S. WISEMAN.

INDIANAPOLIS.

To the Editor:—I have never divided a fee and am unalterably opposed to the practice. While in full sympathy with your attempt to break it up I feel that you have undertaken a difficult task. Unfortunately the laity are thoroughly imbued with the idea that fee-splitting and general commercialism has permeated the whole profession, and in consequence we have sunk very materially in their estimation.

Very truly yours,
FRANK A. MORRISON.

CRAWFORDSVILLE.

To the Editor:—I consider fee-splitting to be the most pernicious and demoralizing practice connected with the business side of medicine. It is a disease that is difficult to treat successfully. I am sure that it would be much better for the coming doctors if the subject of medical ethics was given more attention in the medical colleges.

Very truly yours,
PAUL J. BARCUS.

INDIANAPOLIS.

To the Editor:—Personally I am by conviction and practice opposed to secret rebating. I am

beginning to think, however, that the dividing of fees is an inevitable thing, and that we who oppose it are butting our heads against a stone wall and in the process of evolution it will be accepted as right and proper in medical circles just as it is in law. This does not mean by any means that I am contemplating its practice, but I sometimes feel myself an ass in opposing a measure that I believe must come and that has certain good excuses for its coming.

Respectfully,

FREDERICK R. CHARLTON.

LA FAYETTE.

To the Editor:—Your editorial relative to the practice of fee-splitting is an excellent one. I certainly agree with every word you write on this subject. This practice on the part of the surgeon and the specialist deserves to be mentioned only that it may be condemned. That this condition exists is a blot on our profession and the plan which you hope will show the position of every physician in the state is a good one. Certainly each of us is on one side of the fence or the other, and for the good of the profession it behooves us to let the public know who is who.

Respectfully,

E. VAN REED.

INDIANAPOLIS.

To the Editor:—I wish to commend your attitude on the fee-division problem. I believe that every earnest surgeon in Indiana who has properly qualified himself for his work will be in sympathy with you. In Indianapolis, as elsewhere, the general and special surgeons who are best endowed by Nature and training are the worst sufferers from the fee-division practice. For fee-splitting is a great leveller, increasing the opportunities of the unworthy and decreasing proportionately those of the deserving. I believe that if all will work and plan together in a spirit of tolerance and forgiving, the practice can be suppressed. Your plan of public segregation of sheep and goats has much to recommend it. However, by this plan the goats, alas, if the practice of fee-division can not be checked, will secure the bulk of the work and experience, and therefrom the skill and practiced judgment. It is doubtful whether much can be accomplished by the stuffed-club plan of punishing the offenders. We must not forget that there are in Indiana an indeterminate number of physicians who have a deeply-rooted conviction that the general practitioner has rights in this premise which surgeons are bound to respect. Perhaps

ical measure, and it is nothing more than a bid the final adjustment will come through an increase in the emoluments of the practitioner from his regular services, which will make further employment of dark-lantern methods unnecessary. I would favor a convocation of the surgeons of Indiana for a frank and fair discussion of this perplexing problem, for I believe there is enough manhood and honesty of purpose left in Indiana to dominate such a concourse. This would be in line with your policy of letting the sunlight of publicity clear up the situation.

Very respectfully yours,

JOSEPH RILUS EASTMAN.

VINCENNES.

To the Editor:—I see in your last issue of THE JOURNAL that you ask for the individual opinion of the Indiana physicians on the subject of the division of fees. I would like to say concerning this matter that I am a very staunch non-believer of fee-splitting under any condition whatever. Am very glad to be added to your ranks of workers against it. It is my firm belief that the majority of our men doing special work, as well as the general practitioners, will heartily endorse a rigid movement against this work. To go farther, I will say that it is my belief that we will not find a single man along special lines who is honest, conscientious and ethical who will not be antagonistic to the division of fees, and I do not believe that a reliable practitioner would tolerate the idea of selling patients to the highest bidder when he has gained their thorough confidence through his professional standing.

I stand ready at any time to do anything in my power to aid the Indiana State Medical Association to eradicate this evil, and will only be too glad to assist you in any way if called on. I sincerely hope that the time is near when we can have our medical profession on a basis high enough that evils of this sort will not have to be constantly worrying and taking up the time of this Association, which could be used in so much better way. I remain,

Very truly yours,

V. A. FUNK.

INDIANAPOLIS.

To the Editor:—I have always been and shall always be arrayed against the practice of fee-splitting. As it is easily understood fee-splitting is nothing more than the solicitation on the part of one physician to another, through the medium of some unfortunate patient, for a part of the honorarium gained from some medical or surg-

for the fee on the part of the second or consulting physician. Such a custom carried to its logical end would mean nothing more than the absolute placing of the patient in the hands of the highest bidder, irrespective of the welfare of the patient himself. It is a thing that should be utterly condemned.

Sincerely yours,
ALBERT E. STERNE.

WOLCOTTVILLE.

To the Editor:—As you have opened your columns for the free discussion of the fee-splitting problem permit me to give my ideas from the country physician's view-point:

In the first place it is evident, considering the matter in its every phase, that fee-splitting is not strictly just. But let us see if the surgeon himself has not paved the way for this practice.

I contend that a first-class physician requires as much ability and as many years of close application to become what he is as a first-class surgeon does to become equally efficient in his line. Now I believe we have as good physicians in Fort Wayne as we have surgeons.

I personally know that one of the best physicians in your city came to our town in consultation over the condition of a well-to-do lady and made a charge of \$40. I also know that one of your best surgeons came here and operated on a patient for appendicitis charging \$200 for the same. From this it seems evident that the surgeon charges more in proportion for his services than the physician in the same standing does for his work. But the surgeon claimed that his time away from the city was so valuable that he could not afford to come for \$150, the price he finally accepted.

Now he either told the truth or he did not. If he did not (and I believe this is the case) then why charge such an enormously large fee? If he did tell the truth then his time brings in about \$400 per day (it only requires a half day away from his office to operate here), which is entirely too much for a man of his ability considering what the physician of equal standing gets.

In short it means simply that the surgeon is the big shoat in the pen and that the little physician is blamed for trying to make him divide his ill-gotten gains. This extra amount does not come out of the patient since surgeons have told me that the patients should be made to pay as much as they can afford. It simply comes out of the surgeon who has charged entirely too much

for his services, which in the above case would amount to nearly twice what the president of the United States receives and several times the salary of the chief justice of our supreme court.

The same logic holds true here as in other things, viz.: "The under dog does the howling." The surgeon who refuses to share his theft (?) finds his practice slipping into the hands of his competitors who are not so close-fisted. In short it is the case of the physicians hiring the one of the two surgeons of equal ability who will work the cheapest.

J. H. FOSTER.

FORT WAYNE.

To the Editor:—Fee-dividing does not come up in my line of work, but I would like to say that either the referring physician is very much under-paid as a rule for the work of making a diagnosis and spending a day or two away from his practice attending an operation, or the surgeon is greatly over-paid. It is therefore incumbent that some means should be found whereby each shall get his fair remuneration for his time and services without leaving any suggestion of unfair dealing.

B. W. RHAMY.

INDIANAPOLIS.

To the Editor:—My views concerning fee-splitting are adequately expressed in Chapter II, Article VI, Section IV, "Principles of Medical Ethics of the American Medical Association," relative to the division of fees. An honorable, conscientious adherence to this will result in justice to all, and wrong to none.

R. O. McALEXANDER.

INDIANAPOLIS.

To the Editor:—In regard to fee-splitting, permit me to say that to my mind there can be but one conclusion to such practice.

Surgical fees must of necessity vary and if fee-dividing is permitted by our state laws then the whole matter of charges will rest with the honesty of the physician and surgeon. Medical men and women are not unlike other human beings, and there must be some among the profession who are not over honest and who would be incapable of dealing fairly with the patient in every instance. The wide variation in surgical charges make it entirely possible for the surgeon, in order to secure the influence of his colleague in general work, and in order to arrange a fee for the family physician, to charge his patient more than he would otherwise be charged. This is manifestly

unfair to the patient and it must be admitted is a possibility of fee-dividing.

The above is one phase of the question, and on the other hand, as is too often the case, the family physician spends weeks or months in the care of a patient and finally induces him to consult a surgeon, and in many instances the surgeon is promptly paid for his services, whereas the family physician is inadequately paid.

It follows then that there are two sides to this important question and the only equitable adjustment, as I see the matter, is for the surgeon to insist on the family physician being paid in proportion to his services when he himself is paid. As for charging the patient a larger fee than the surgeon would otherwise charge, and remitting a portion of said fee to the family physician without the knowledge of the patient, I am absolutely opposed to such practice. Should the patient fully understand that a fee paid to a surgeon is in settlement for services rendered by both physician and surgeon, then I can see no possible objection to such an arrangement.

Very truly yours,

WM. F. CLEVINGER.

INDIANAPOLIS.

To the Editor:—I desire to have my name enrolled on the list of "anti-fee-splitters."

Yours sincerely,

A. B. GRAHAM.

LIBERTY.

To the Editor:—Please put my vote down for the "anti-fee-splitters."

GARRETT PIGMAN.

INDIANAPOLIS.

To the Editor:—I am against the practice of fee-splitting.

Very truly,

ORVALL SMILEY.

LA FAYETTE.

To the Editor:—Put me on the list of anti-fee-splitters.

GEO. F. KEIPER.

OXFORD.

To the Editor:—Please record me as being opposed to fee-splitting. I am only sorry that we cannot reach those in Chicago who are keeping country doctors upset by rebates.

Respectfully,

R. E. LEE.

TERRE HAUTE.

To the Editor:—I wish to be enrolled among those opposed to fee-splitting.

S. M. RISE.

AUBURN.

To the Editor:—In answer to Dr. Porter's suggestion I am pleased to announce my vote for the "anti-fee-splitters."

W. W. SWARTZ.

VINCENNES.

To the Editor:—I notice a letter in your March number of THE JOURNAL from Dr. Porter, in which he takes a stand against fee-dividing, and I wish to add my name to the list of those opposed to this pernicious custom. While I am new in the line of regional surgery I can proudly say that I have never split fees with anyone.

Respectfully,

D. H. RICHARDS.

COVINGTON.

To the Editor:—Please enroll my name on the list of "anti-fee-splitters."

Very respectfully yours,

GEORGE ROWLAND.

BOONEVILLE.

To the Editor:—Fee-dividing is doing more to lower the medical profession than all other things taken together. I consider fee-dividing a very low form of graft.

Very truly yours,

GUY HOOVER.

INDIANAPOLIS.

To the Editor:—I am against the practice of fee-dividing; the surgeon should collect for his services and the family doctor do likewise. However, in some cases, I feel that the family doctor is inadequately paid; and, occasionally, circumstances are such that it is impossible for him to collect a fee sufficient for the services rendered.

Very sincerely,

PAUL B. COBLE.

INDIANAPOLIS.

To the Editor:—I wish to state that I am gratified with the stand taken by your JOURNAL. It seems to me that the professional man has no reason whatever to depart from our ethics that have stood the test of time. I am sure the profession will soon again stand a unit on this matter. The present departure from a past standard must be regarded as being of ephemeral duration.

The many new phases injected into the modern practice of medicine have proven themselves very disquieting. Pending readjustment and the fuller settlement by the new course, all sorts of unusual phenomena and practices may reasonably be expected.

Yours very sincerely,

H. O. PANTZER.

INDIANAPOLIS.

To the Editor:—I am very glad to notice the activity of our JOURNAL in denouncing the dishonorable practice of fee-splitting.

I am unequivocally opposed to the practice of fee division, and I firmly believe that such practice is very degrading and extremely detrimental to the dignity of our profession. In my opinion for every argument advanced in defense of the practice ten stronger ones can be advanced to condemn it.

It is true that we cannot expect the general practitioner to give up his patients needing special work, without some form of compensation, but this fact does not justify fee division, because fee division breeds commercialism, and it very often happens that the work goes to the highest bidder and not to the most competent worker.

I sincerely hope that through the efforts of THE JOURNAL a plan may be formulated which will enable the specialist to deal with this problem in a manner honorable to the profession and in justice to the general practitioner and his patients.

Very truly yours,

VINCENT A. LAPENTA.

INDIANAPOLIS.

To the Editor:—Concerning the subject of fee division, allow me to say that I am absolutely opposed to this disgraceful practice, and shall ask a little space to give some reasons.

In the first place the practice is unethical and does not give the man of merit an equal chance with the inexperienced and incapable. If the latter be skilled in the practice of dividing fees, although he may be incompetent and unscrupulous, he may enjoy a lucrative business at the expense of a trusting public and at the same time prove a great hindrance to the scientific and conscientious operator.

I may well illustrate this, if you will pardon my reference to a little personal experience. There came to the writer in the space of twelve months four patients who had been sent to a certain surgeon for operation; two were told

that they had appendicitis, one was diagnosed as a gall-stone case, and one was told that she would have to have a cesarean section performed. I delivered this latter woman in the natural way with perfect results for mother and child. After a careful investigation I decided that none of the other cases were in need of an operation. Several months have passed since, and they are all enjoying the best of health.

The surgeon mentioned in this case is a competent man, but whatever else he may be it is evident that these patients would not have been referred if there had been no prospect of a fee in the case. The banker in the town where the practitioner lives told me that the surgeon mentioned often sends the doctor a check and they always come soon after some one has been operated who lives in the neighborhood.

There are many reasons that might be cited against this infamous and growing practice. The methods under which it may be indulged in are so intricate I must confess I have no remedy to offer that might help to meet what I consider a great emergency.

Sincerely,

D. F. LEE.

FORT WAYNE.

To the Editor:—Concerning the question of fee-splitting I desire to say that I do not believe that a medical gentleman should lend himself to any transaction which is not open and above board, and fee-splitting is not an open and above board transaction.

Very truly yours,

MAURICE I. ROSENTHAL.

INDIANAPOLIS.

To the Editor:—I can have but one opinion on the fee-splitting practice; namely, that it is wrong and can only lead physicians who practice it into trouble. The greatest wrong, however, is usually to the patient who is referred, rather to the surgeon known to pay the highest fee for cases referred than to him who is qualified to render the most efficient service to such patient. The practice, therefore, puts a premium on medical and surgical incompetency. It entices the physician to select the poorest counsel who will split a fee, rather than the highest authority who will not divide. Splitting fees degrades the participants and defrauds the patient. Should fee-splitting become a common custom the high-class honest physician is pulled from his pedestal and the incompetent is elevated to his level. No longer would there be that commendable incen-

SOCIETY PROCEEDINGS

INDIANAPOLIS MEDICAL SOCIETY

Meeting of April 1

tive on the part of the honest physician to prepare himself in the most thorough manner, disregarding time and cost in doing so, for the reason that at the end of such preparation he would find himself on the same level with the ignoramus who finds it easier to buy business than to deserve it.

While holding the above views I also recognize the fact that many physicians who have cases to refer seem to believe, perhaps honestly, that unless they can obtain some remuneration from the surgeon they will never be paid at all. I have often felt sorry for the family physician, knowing that his fees are often small and his annual income inadequate, when it seemed certain that he would receive no fee whatever for his day or half-day's time spent in bringing a patient to the surgeon, and at the patient's request that he do so. I have private knowledge of many such instances. Something is wrong and needs adjusting here. No surgeon could feel happy on receiving a fee with full knowledge at the time that the family physician is devoting perhaps an equal amount of time and expense with no hope of remuneration. My belief is that the family physician too often does not insist, at the time he is asked to spend time in accompanying a patient, on the fact that such a transaction is a purely business one and should be paid for on the same just basis as other service. I think the whole profession should help in every way to educate the public that the family physician should be liberally paid for this class of service, and paid at the time the surgeon is paid.

It seems to me unwise and unsafe to advocate a single fee to all concerned. It seems to me the whole question is a burning one, that it should be dealt with openly, and the whole effort should be to arrive at some conclusion whereby both surgeon and family physician may receive due consideration. I am glad you are taking the question up and desire to help in any way I can.

Sincerely,

JOHN F. BARNHILL.

INDIANAPOLIS.

To the Editor:—I have delayed giving my opinion about "fee-splitting" because I have been trying to formulate some ideas on the subject to submit to you. But the more I think about the whole sickening business the more I become confused so far as working out any plan to eradicate it. But suffice it to say: I do *not* split fees and do not intend to.

Sincerely,

THOS. B. EASTMAN.

Meeting called to order by the vice-president. Number present thirty-eight. The applications of Dr. Harry L. Baum and Dr. J. L. Stalker were read for the first time. Drs. Carl Habich, Clarence Lucas, Raymond C. Beeler and W. E. Tinney were elected to membership in the society.

The program of the evening consisted of case reports. The first case was presented by Dr. H. O. Pantzer. Subject, "Intra-Intestinal Tumor Resulting in Intussusception." Miss O. R., aged 15. During last three months has had some abdominal disquietude which at times required medical attention. Pain sickening, burning and colicky. Some nausea and vomiting. During attacks abdomen distended and purgatives produced much griping without bringing stool. Temperature 99 to 100. Pulse 110 to 124. Definite diagnosis impossible. Operation. Some pale, clear fluid in cavity. Small intestines distended and edematous. Intussusception. Bowel opened at this point and small oviform tumor disclosed. Size $1\frac{1}{2}$ by $2\frac{1}{4}$ inches. Myomatous in consistency. Bowel resected at this point. Recovery.

Dr. S. J. Young presented the second case. "Colonic Pain Simulating Renal Colic." R. M. F. Male, aged 28. Ten years ago patient had large stone in right kidney, which led to nephrectomy. In the spring of 1912 for the first time pain developed in left lumbar region, radiating downward and forward. Attacks—thought to be renal colic—very severe and unrelieved by morphia. Chloroform anesthesia for each attack. Anesthetized sixteen times in eight weeks. Attacks infrequent at first. Later as frequent as two to four times a week. Physical examination and blood and urine examinations negative. Radiographs of kidney and ureter revealed nothing. Bismuth injections into the rectum followed by radiograph showed enormous sigmoid, with two points of apparent obstruction. Diagnosis: colonic stasis due to partial mechanical obstruction. Operation advised but deferred. Operation should consist of resection of the sigmoid loop and anastomosis. With diet, laxatives and abdominal massage patient is comparatively free from attacks.

Dr. W. N. Sharp. Case of ophthalmia from rare cause. Mrs. R., while riding in touring car some foreign substance was thrown into left eye. Substance found later to be pieces from an anilin pencil. I saw the case two hours later. Eye deeply colored by the anilin, pieces of which were embedded throughout the conjunctiva. No break in the cornea or conjunctiva. Conjunctiva presented appearance of superficial burn. There was but little pain. Cold applications. Next morning eye less stained and conjunctiva edematous and inflamed. Some minute particles embedded too deeply to be removed without much injury. Pupil normal. Little pain. Vision 20/60. Eye washed with 5 per cent. solution of tannin. After a few days some signs of necrosis of conjunctiva and lower fornix. Some sloughing. A 1 per cent. solution of atropin alkaloid in sterile olive oil in eye three times daily. Over the points where the stain was deepest the sloughing continued. Adhesions formed rapidly but were broken up each day. Anilin coloring soon cleared up, but conjunctiva red and edematous. At the end of

six weeks vision was restored to normal with no change in fundus. The case is interesting because of the peculiar manner in which the substance was thrown into the eye and the extreme reaction following.

Drs. S. E. Earp and H. R. Alburger. Male, aged 53. Negative history. Admitted to hospital Jan. 6, 1913. Pain in region of umbilicus, extending to right. Pain radiated to left kidney and sometimes to right clavicle. Some dyspnea on exertion. Some years ago legs and ankles swollen but not recently. Skin cadaveric yellow. No external evidence of injury. Poorly nourished. Loss 30 pounds in three months. No cough. Heart normal in size and rate. Lungs normal. Umbilicus showed evidence of superficial inflammation, resembling eczema. Umbilical venous engorgement. Abdomen distended. Nodular mass, tender, $2\frac{1}{2}$ inches in diameter, involves umbilicus. Liver contracted. Some pain in bowels a few hours after taking food. Blood and urinary examinations and test meal furnished no evidence. Great emaciation. Loss of appetite, dullness on percussion of left inferior quadrant, thickening of rectal walls, nodulated umbilicus and signs of a negative import led to diagnosis of carcinoma. Primary seats not decided.

Pathological specimens were exhibited by Dr. Alburger. Autopsy showed abdominal wall thin and lax with considerable fluid. Intestines matted together; lungs comparatively normal. Very extensive carcinoma; all post peritoneal; peritoneum shriveled; transverse colon thick and sagging. Carcinoma, sigmoid entire colon, mesentery, pancreas, umbilicus and liver. Liver small but not cirrhotic.

Discussion.

Dr. Hadley: The umbilicus might be the original site of the cancer.

Dr. Alburger: Not the umbilicus because had it been so the liver would have been involved more and the sigmoid less.

Adjourned.

Meeting of April 8

Meeting called to order by the vice-president. Number present fifty. Minutes of the preceding meeting read and approved.

Dr. Lowder presented the case of Dr. Katherine Ford, whose property was greatly damaged by the high water of recent date, and asked that the society take some steps toward her relief.

Dr. Potter suggested that there were other doctors who were affected by the flood. Dr. Morrow moved that a committee be appointed to investigate the conditions among all physicians affected, said committee having power to attend finally to the situation. Motion carried. Chair appointed Drs. Potter, Lowder, Beckman, Morrow and Conner on the committee.

The first paper of the evening was read by Dr. E. F. Kiser. Subject: "Ceremonial Circumcision." Circumcision is the oldest and most widely practised surgical operation, dating back to a prehistoric era. The operation proper or one of its modifications is practised to-day throughout the Mohammedan world, in parts of Africa, Asia Minor, Europe, Australia and America, and by the Jews throughout the world. It probably originated as a rite of initiation rather than a hygienic measure. The traditional Jewish origin is found in Genesis, xv, 10-14, in which circumcision is ordained by God as a covenant between Him and His people. The operation as practised by the Jews was attended with much ceremony and consisted of three

parts — excision of the prepuce, tearing of the mucosa to expose the glans, and sucking of the wound. It was performed by an operator specially skilled in the work. It has at present lost much of its religious significance, and is performed by an operator trained in antiseptic technique with, of course, abolition of the sucking of the wound. It stands to-day rather as a hygienic measure than a religious performance.

The second paper was read by Dr. H. R. Alburger. Subject: "Truth and Fiction About Autogenous Vaccines." In the paper he called attention to the introduction of the vaccines by Wright and Douglas as an adaptation to the prior work of Pasteur and Metchnikoff with the added feature of the opsonic index which has since been practically abandoned. In the absence of this the administration of vaccines is unscientific because we not only have no index of their action, but no accurate way of measuring their bacterial content, either as to quality or toxicity, or virulence. The paper called attention to the methods now in vogue for the preparation of vaccines in a scientific way as well as the ordinary way, and especially deprecated their preparation by those untrained in bacteriology. Incidentally some innovations were suggested in the methods of standardization, as well as producing a pure culture of the disease producing germs. It was proposed that the bacteriologist be considered as a consultant rather than as a mere technician in the use of bacterins. The author said that in his experience vaccines were only effective in a limited number of conditions where the process was due to pyogenic bacteria and where the disease was subacute or chronic.

DISCUSSION

Dr. A. W. Brayton: Dr. Kiser's paper is very interesting. Through history we see that the attitude of different races of the world differs regarding the sexual organs. The rite of circumcision varies in accordance. As it is practised for hygienic purposes it is overdone. Many cases of circumcision are done that need not be done. What psychical effect it may have on the individual, if it has any, cannot be told.

Dr. Erdman discussed the single stroke operation in relation with the single stroke as used in slaying animals for food. The selection of the eighth day with the Jews depends on the fact that at that time there is little pain attached and in olden times it was the eighth day that the mother was up and around. Circumcision cannot have any material effect on the mentality of the individual.

Dr. H. S. Thurston: There are two kinds of immunity — natural and acquired. Acquired is produced in two ways, actively and passively. Theory of immunization must be acknowledged. Much written both for and against vaccines — some truth on both sides. Vaccine therapy is attended with difficulties. We know that when a foreign substance is injected into the body some cell changes occur. What that change is precisely, we do not know. Another difficulty is the lack of knowledge of bacteria. Bacteriology is yet in its infancy. When we can know all about the organism, its habits and action in the body, then it will be easy to treat disease. Autogenous vaccine therapy is an effort to increase immunity or cure disease by the modification of the germs that are producing the disease with less injury to the host than that produced by the germs themselves. Vaccine therapy will help, but it will not do all.

Dr. H. K. Langdon: Vaccine therapy unskilfully and indiscriminately used will do little good and often much harm. Physicians in general do not understand the difference between active and passive immunity. Vaccines are often improperly used and are then of no value. More harm would be done by incompetent bacteriologists if it were not that their mistakes often protect the patient against their intentions. In preparing many autogenous vaccines a pure culture is seldom obtained, and the saprophytes overgrow the pathogenic organisms. Most vaccines are heated to such a degree that the substances which bring about immunity are nearly all destroyed and the bacteria rendered almost inert. Otherwise there would be some disastrous results.

Dr. Allen: To do a simple dorsal incision and cut out the frenum is a better operation for hygienic circumcision than the ordinary method which often leaves a pocket on either side of the frenum.

Dr. Brayton: Shall we condemn stock vaccines or not? Believes that Dr. Alburger would give the bacteriologist too important a place in medicine. Bacteriology cannot stand alone as a specialty. Cannot rank above surgery. Anybody can learn to be a bacteriologist but anybody cannot learn to do surgery.

Dr. Dodds: Only an expert should attempt to make a vaccine. Leucocytosis is the indicator of the vaccine. If leucocytosis is plus no vaccine is indicated. If minus a vaccine is indicated. All vaccines are dangerous if not expertly handled.

Dr. Charleton asked Dr. Alburger what particular vaccines he believes to be of value. Has used them in many cases of genito-urinary work, but has not secured results. For everybody to do everything is pernicious. A man should be an expert in any work that he attempts in medicine.

Dr. Shimer: Vaccine therapy has not made much advancement since Wright's time, because it was rapidly commercialized and has degenerated almost to the level of proprietary drug treatment. We know very little about the biological products of pathogenic bacteria. We are not dealing with simple chemical compounds, but living substances capable of adapting themselves to unfavorable circumstances. There is considerable difference in the ability of pathogenic bacteria to react to changed environment or to change their biological characteristics. Typhoid, diphtheria and tubercle bacilli are rather fixed, while gonococci, pneumococci and streptococci quickly become serum fast or do not react to antibody formation. The most difficult thing in making an autogenous vaccine is to isolate the offending organism. Growing the organism is also important. Virulent diphtheria bacilli grown in broth containing 2 per cent. glucose will not kill a guinea-pig, even in large doses. Grown in broth free from sugar, small doses will kill large rabbits. If vaccine therapy is to advance to a high scientific level a few men must devote their whole time to it and control the administration as well as the preparation of the vaccines.

Dr. Pantzer referred to the immunization of snake-eating animals the toxins of the reptile.

Dr. Alburger closing: Stock vaccines same as autogenous except that they are less efficient because of the difference in the strain of the organism. Anybody can make a vaccine but it is more to know how to use it. Vaccine therapy has shown but little benefit in genito-urinary work.

Meeting adjourned.

Meeting of April 15

Meeting called to order by the vice-president. Number present sixty. Reading of the minutes was dispensed with to give Dr. Heath time to read to the society the memorial of Dr. J. L. Thompson. This memorial will be printed and sent to each member of the society.

Dr. Potter made a brief preliminary report of the work done by the committee on relief of physician flood sufferers. A detailed report will be made later.

The first paper of the evening was read by Dr. A. B. Graham. Subject: "Recto-Colonic Alimentation." No abstract was furnished.

The second paper was read by Dr. W. D. Gatch. Subject: "Manner of Growth and Surgical Treatment of Cancer of the Breast."

Cancer of the breast has been more thoroughly studied than any other malignant condition and the manner of its growth is better understood. Cancer spreads by direct and continuous growth along lymphatic channels. This conclusion of Hanley is generally accepted. Emboli of cancer cells, though they frequently gain access to the blood stream, are usually destroyed there and do not as a rule give rise to metastatic growths through this source.

The cancer spreads chiefly along the deep fascial lymphatic plexuses. The extreme limits of the growth are always roughly equidistant from the primary focus. The distal parts of the arms and legs are not attacked because the patient dies before the growth has reached that far. The bones are involved at points where the fascial plexuses come closest to them. The body resists the growth by a deposit of scar tissue around the cancerous lymphatics, called peri-lymphatic fibrosis. It may kill the central parts of the growth but as a cure it is inefficient. The pleural and peritoneal cavities are attacked by a direct growth through the body walls.

In operation the object should be to excise in one block all the tissues involved by the growth. It is necessary in all cases to take both pectoral muscles. The lymphatic vessels and glands lying between them are involved early. The deep fascia should be excised over a wide area. An incomplete operation scatters the disease.

With good anesthesia and hemostasis the mortality rate in radical breast operations is less than 2 per cent. Statistics from several clinics show that 75 to 80 per cent. of the early cases without involvement of the skin or axillary glands can be cured and from 33 to 40 per cent. of all cases. The purpose of the operation in advanced cases is not merely to save life, but to relieve the patient of the physical and mental torture incident to the presence of the growth.

DISCUSSION

Dr. H. H. Wheeler: Poor results are secured by rectal feeding immediately following a cleansing enema, because of the irritation of the rectal mucosa. In gastric ulcer an appendicostomy can be done and feeding conducted through the appendix. The absorption of food per rectum is about one-fourth of the total calories injected.

Dr. Goethe Link: Dr. Gatch is a cancer optimist. I am a pessimist. Percentage of breast cancer cures is very hard to get; 30 or 40 per cent. is much too high. The ultimate mortality is more likely to approach 100 per cent. The only salvation is to recog-

nize early and remove at once. An incomplete early operation is better than the most radical late procedure.

Dr. Paul Martin: Agrees with Dr. Link as to the difficulty of getting good statistics. In private practice the number of cures is much less than in institutional work. Education of the patient to routine examination would help us out of the difficulty. Patient should be examined every six months as is done in dentistry. Age is no longer a factor in diagnosis. Chronic mastitis should be operated on because of the high proportion of these cases that later become malignant.

Dr. H. O. Pantzer: Employs rectal alimentation invariably in operated cases. Temperature of enema 105 degrees F. in the container. Container not more than 6 inches above the nozzle. Nozzle introduced not farther than $1\frac{1}{2}$ inches. Is optimistic concerning results in breast cancer operations. Condemns pessimistic view. Cures may not reach 30 or 40 per cent., but cases certainly do not reach a 100 per cent. mortality.

Dr. T. B. Noble: Rectal feeding often fails because the nurse or attendant fails to properly administer it. The high introduction of the tube is both difficult and useless. The cancer question is vital. Likes the optimistic view. Is hopeful. In operating cut as far as you can and hope that you have cut far enough. The case occurring in youth is doomed. That in the elderly individual is hopeful.

Dr. Thos. Kennedy: Cancer cases are brought to the surgeon too late as a rule to permit of much success from operation. Removal of the pectoral muscle is not necessary.

Dr. M. N. Hadley: One must be thoroughly acquainted with the pathology of cancer in order to understand the question of operation.

Dr. Paul Martin: High cure percentages come from institutions where the cases are selected. One in four of these institutional cases are refused operation.

Dr. Goethe Link: We have had to-night four cases reported cured by operation by members of this society.

Dr. Gatch in closing: In the very early case we can promise a cure. Results in the late radical operation are not as bad as is commonly supposed. Much relief is given to the patient and life is somewhat prolonged. Radium is good, but the cost is too high.

Adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of April 22

Meeting called to order by Vice-President J. A. Pfaff. Number present fifty-eight. Minutes of the last meeting dispensed with. The application of Herbert Wagner was read for the second time.

The first paper of the evening was read by Dr. W. S. Tomlin. Subject: "Mastoiditis—A Complication and an Entity." That while the mastoid cavity is physiologically a part of the middle ear, and is involved in all cases of acute suppurative otitis media, a pathologic process there may be forestalled by a prompt and free incision of the drum, or mastoiditis having developed may overshadow tympanitis to the extent that it may be well considered a complication of it. Granted that only traumatic mastoiditis can be primary, the usual form may continue after being shut off from the recovering parts of the middle ear and thus be an entity.

The etiology of mastoiditis therefore is the same as that for tympanitis, including all the causes of obstructions in the nose and pharynx, with especial stress on adenoids, degenerate tonsils and nasal insufficiency. The exanthems and other debilitating conditions acting largely through the above, are important factors. Lack of tympanic drainage is thus important in both cause and continuation of mastoiditis. Mastoiditis may be acute or chronic, continued, intermittent or remittent. Diagnosis of chronic form is difficult.

Prognosis in acute cases is most important as to hearing. In exacerbated chronic cases life is most threatened. All cases deserve serious consideration and should be treated. Treatment is prophylactic and curative, the former being pointed in the etiology, and the latter is divided into non-operative and operative. Irrigations recommended. Powders not recommended. Snare and curette, silver and copper salts to keep free the drainage through the external ear. Operation may be the most conservative method for life and hearing, and its postponement is not always conservative. Cases that do not yield in time to ordinary nonoperative treatment should be operated.

The second paper was read by Dr. R. O. McAlexander. Subject: "Concerning Diagnosis and Treatment of Extra-Uterine Pregnancy." This subject has been accorded exhaustive discussion. This paper limited to cases subsequent to rupture, the diagnosis of which is supposed to offer but few difficulties. Typical cases described in the text books are the exception and not the rule. Unrecognized ruptured extra-uterine pregnancy is comparatively frequent. A report of nine such cases which remained unrecognized for periods varying from one week to three months reported.

Carefully studied histories are most essential to accurate diagnosis. Amenorrhoea for one or two months followed by prolonged menstruation, with a history of sharp, lancinating pain, points to this condition. The treatment should invariably be surgical. The presence of blood clots and products of conception act as an insult to the peritoneum, resulting in peritonitis and its sequelae, adhesions. Great difference of opinion exists as to the proper time for surgical intervention in cases attended with shock. Each case should be treated on its merits. Conservative treatment to be preferred to hasty surgical procedure. Shock should be treated by the usual measures. The development of diagnostic skill is urged.

DISCUSSION

Dr. McNaul: A few years ago immediate operation was advised. Now we believe in not hurrying. Wait for the shock to pass. Errors in diagnosis are due to lax methods or lack of time on the part of the general practitioner. At the present time 3 or 4 per cent. of all laparotomies in Kelly's clinic are ectopic cases.

Dr. Thos. Kennedy: Diagnosis before rupture is extremely difficult. After rupture it is comparatively easy. Early diagnosis is important.

Dr. Bonnafield of Cincinnati, who was present as the guest of Dr. T. C. Kennedy, upon invitation of the society, rendered an extremely interesting discussion of Dr. McAlexander's paper. Cited one case of ectopic pregnancy operated at term. Another case operated seventeen years after rupture disclosed bony remains of the foetus. Many cases recover and the condition is not diagnosed. Shock is due to the traumatism as well as to the hemorrhage. Hemorrhage, if the patient does

not die at once, will usually take care of itself. Blood in the peritoneal cavity will be absorbed by the peritoneum.

Dr. Noble: Degree of hemorrhage dependent on the place of implantation of the ovum. If near the uterus the hemorrhage will be great. If near the extremity not so great. Subjective signs important. Objective not reliable. The occasional case which does bleed to death is sufficient basis for immediate operation. Peritonium will not take care of the hemorrhage as well as Dr. Bonnafield contends. Cleanse the abdominal cavity well at the time of operation.

Dr. Thorner: Even with the abdomen open a diagnosis of ectopic ruptured pregnancy should not be made simply because of the presence of hemorrhage. Hemorrhage into the peritoneal cavity is not uncommon from other causes. Diagnosis should depend upon finding evidence of foetal remains. Diagnosis of ruptured ectopic is occasionally a mistake even with the abdomen open.

Dr. Tomlin closing: The conservative attitude in mastoiditis is not always to wait. Early operation is often more conservative.

Dr. McAlexander closing: For the general practitioner diagnosis is often difficult. For the specialist it is easier because the history is often there ready for him. He has time to enter into the study of the case in greater detail.

Adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of April 29

Meeting called to order by the vice-president. Number present sixty. Minutes of the preceding meeting read and ordered corrected.

The application of Dr. Orville Smiley was read for the first time. The applications of Herbert Wagner and Harry L. Baum were read for the third time. These gentlemen were elected to membership in the society.

The first paper of the evening was read by Dr. C. D. Humes. Subject: "Brain Syphilis." Brain syphilis may occur within a few weeks after the initial lesion. Pathology divides itself into affections of the meninges, the arteries and the formation of new growths. The diagnosis of meningeal affections depends on the special sense disturbance, if at the base, and particularly of affections of the third nerve. Meningitis elsewhere, if extensive and encroaching on the motor region, localizes itself accordingly. Arteritis is present in all cases of brain syphilis and may be present without meningitis. It is seldom present in hereditary syphilis, but cases of extensive arterial affection in the young are on record. The formation of new growths classifies itself very closely with any tumor of different origin. Differential diagnosis depends on serum examination. The writer would associate brain syphilis directly with many so-called cases of general paresis. The diagnosis and prognosis of brain syphilis depend on a careful clinical examination and especially on the increased cellular and globulin content in the cerebrospinal fluid, the increase of fluid pressure and the positive Wassermann. The first examination of the blood and spinal fluid, together with the clinical manifestations are the guides to treatment.

Brain syphilis demands heroic treatment and absolute control of the patient for its correction and cure. It can be cured if recognized early and treated properly. Even after the blood is negative, frequent

examinations should be made to assure one of the control of the condition. The treatment is the same as for any other form of syphilis, viz.: Neosalvarsan in often and regularly repeated doses with plenty of mercury and K. I. along with it.

The proven connection between both acquired and hereditary syphilis and many forms of mental disease and degenerative states, stamps lues as the most important scientific question before us to-day. Not too much credit can be given to Noguchi and his associates for their recent demonstrations. The Wassermann in the hands of a scientific man has come to be entirely reliable. The serological examinations as they are done to-day are giving neurology and psychiatry their correct basis for diagnosis and treatment in a very large majority of the cases coming into the field.

The second paper, subject, "Some Things to Consider on Opening the Abdomen," was read by Dr. E. E. Padgett. Abdominal surgery has had a rapid rise and a steady progress toward a state of perfection. Two salient causes have brought this about. (1) Better training of the men in the work, resulting in the development and cultivation of surgical cleanliness, courage and skill. (2) The discovery of the cause of infection and the perfection of various methods of avoiding and combating this condition. These two features have been strengthened by the kindness with which nature has endowed the abdomen with the following characteristics: (1) Slowness with which infections spread in the cavity. (2) Ability to combat infections well when established. (3) Ability to get along with a condition that would be considered bad surgery were similar results obtained on bones, nerves and tendons.

A man's ability in this field depends on his diagnosis, his technical skill and his surgical judgment. Surgical judgment is of greatest importance and technical skill third in importance in the makeup of the man. Ether is our best anesthetic with nitrous oxid and oxygen a close second. A trained anesthetist is often more important than the agent given.

Preparation of the patient should be very simple, consisting of only a cathartic and two enemata. The operative field is satisfactorily sterilized by the use of ether or benzine followed by tincture of iodine at the time of operation. Hand sterilization should be simple and rubber gloves always used.

In making the initial incision into the abdomen more pathology can be reached through the right rectus incision than through any other. Peritoneal toilet should be complete except in cases of virulent peritonitis. In pus cases drainage should be complete and done by means of an open rubber tube, never forgetting a gauze drain by way of the vagina. All sponges should be large and wet. In closing the abdomen in clean cases three rows of sutures are enough, one through the peritoneum, fascia and skin, respectively.

Postoperative care is as follows: Wash stomach immediately. Salt solution by Murphy method for several hours. Morphine to quiet pain. Gas pains relieved by enemata and colon tube. Drugs for relief of gas pains are far from satisfactory.

DISCUSSION

Dr. C. E. Cottingham: Syphilis of the central nervous system can be divided into two classes. First, the active, and second, the degenerative. The degenerative conditions take in tabes and general paresis. Active and degenerative condition may exist in the same case.

This accounts for the finding of spirochetes in paresis. Gummata produce symptoms dependent on their size and location. Transitory paralysis in the young is nearly always of syphilitic origin. Complete serological examination of suspicious cases is important. There is little hope as to treatment in paresis and tabes. In the active conditions much improvement is secured by vigorous treatment. Hereditary brain syphilis may be active or passive.

Dr. J. A. Pfaff: A surgeon should get his experience by assisting for a long period a master surgeon. He should be qualified to cope with any condition which might present itself in an open abdomen. The exploratory laparotomy is at times necessary, but every effort should be made to find the existing pathological condition before the abdomen is opened. Simplicity in preparation is proper, but effectiveness must not be sacrificed to simplicity. There should be an expert anesthetist at the head of the patient. Pelvic drainage is best accomplished by drain from the cul-de-sac. In most cases I favor the median incision. The place of incision, however, is better located as the diagnosis is more accurately made. The incision should be large enough to do the work, but no larger.

Dr. M. Thorner: The self-made surgeon is usually made at the expense of many innocent lives. Surgeons are not born. They are trained to be surgeons. Manual dexterity is but a small part of a surgeon's requisites. Diagnosis is most important. Recent investigation has disclosed the fact that the Trendelenburg position predisposes to acute dilation of the heart and no doubt some unexplained deaths on the table are due to this position. Thymol is an excellent antiseptic for the skin in animal surgery. Why would it not be good for us to use? Better not to irrigate pus cavities. Drain where there is necrotic tissue. Morphine to be used only during the first twenty-four hours following the operation.

Dr. H. R. Alburger: Reported 2,000 punctures into veins for obtaining blood without an infection. Many blood cultures made without contamination. In all of these cases simple tincture of iodine alone was used on the skin.

Dr. T. B. Eastman: Many interns know too much. After they are in the hospital about a month they begin to make fun of the surgeon. Prefers ether anesthesia. Count sponges before and after operation. Manual dexterity is most important in operating.

Dr. R. O. McAlexander: It is true that the surgeon should be well prepared for his work. A long experience in the general practice of medicine is the most valuable training. The incision should be large enough to admit the hand. Use only large sponges. Attaches much importance to the proper closure of the wound.

Dr. S. J. Young: Knowledge of pathology is essential for the surgeon. Do not handle everything in the abdomen. The Fowler position and proctoclysis are two most important adjuncts to postoperative treatment.

Dr. C. F. Neu: We as physicians do not yet appreciate the importance of syphilis. This is especially true in the nervous system. Recent more careful investigation of nervous diseases is showing syphilis on the increase as a causative factor. Early manifestations are often mistaken and much valuable time

is lost before proper treatment is begun. Many cases of so-called neurasthenia are nothing but syphilis. Syphilis often involves the blood-vessels of one organ without affecting the vessels of any other in the body. The spirochete is found more frequently recently because more detailed examinations are being made.

Dr. A. W. Brayton: We are waking up to the syphilis situation. Particularly are the institutions for nervous and mental diseases. There is much light being thrown upon certain conditions which formerly were allowed to go almost untreated. The Wassermann test has been the great light to guide us. Doubtful cases are now given more careful attention. More careful and fruitful examinations are made of the patients. Syphilis has been neglected by us and it is well that we do awaken to the possibilities it affords. The old dictum, "When in doubt give K. I.," still holds good. Neosalvarsan is effective, but we yet have a great field in syphilis for mercury and K. I. For the ordinary case of syphilis four or five full doses of neosalvarsan in as many weeks, followed by mercury in the form of salicylate or quick-silver rubbed up in oil, for a year or thereabouts and the case will be cured. Patient can safely marry after twelve months' conscientious treatment.

Dr. Humes closing: The great question is, "Where does syphilis stop and paresis begin?" Too many times we declare a man parietic when it is only brain syphilis in a curable form. How far does salvarsan enter the system. It has not yet been found in the spinal fluid. One method followed to some extent in the east is this. Salvarsan is given. Then some of the patient's blood serum is taken and reinjected into the spinal canal after a like quantity of spinal fluid has been withdrawn.

Dr. Padgett closing: After thorough diagnostic measures have failed and trouble still continues, exploratory laparotomy is excusable. Common surgical sense is needed. Dexterity is not so important as diagnostic ability and good judgment.

Adjourned.

DELAWARE COUNTY

The regular meeting of the Delaware County Medical Society was held May 2.

Dr. Alois B. Graham of Indianapolis read a paper on "The Diagnosis of Gastric Lesions." The paper was replete with good things and abstraction was difficult, but the secretary was able to note the following points:

The ability to correctly diagnose gastric lesions is of prime importance, for every practitioner sees many cases. The expression "stomach trouble" is a very familiar one to every physician and may mean much or little, or even nothing.

Various mistakes are frequently made in accepting without question the patient's diagnosis, by not differentiating obvious symptoms, or even by attempting a too critical and purely scientific diagnosis.

Above all things a physician should strive to have some definite idea in mind before prescribing. To give an acid or an alkali with the hope that the annoying symptoms will be relieved is inexcusable. The true etiology is essential in every instance. More is involved than a consideration of the stomach; the patient must be considered as a whole; consideration

of one organ narrows the point of view. Extensive examination may not be necessary in all cases, but no physician can tell at a first glance just who of his patients may be safely slighted. Many mistakes are due to a superficial examination.

Stomach trouble may be present without subjective symptoms. For instance in atrophic dyspepsia a persistent diarrhoea may be the only symptom. Some ulcers go for a long time unrecognized, and again, healthy patients are under treatment for lesions they do not have.

There have been rivalry and contention between surgeons and internists. The general practitioner is inclined to think the surgeons are too active, yet the young doctor witnessing a surgical clinic is inclined to believe most serious cases are surgical. Stomach troubles are best treated by him who has the best knowledge of general pathology and rightfully belong to the realm of internal medicine.

Many patients blame their stomachs for conditions which are purely nervous. Here as in other conditions the value of a thorough systematic examination is demonstrated. The patient should be allowed to talk so long as he can tell anything of importance only. His habits, his environment and everything that affects his physical and mental status must be considered. No serious cases should be dismissed without an examination of the rectum. The physician who needs or must have an exploratory incision to clear or verify his diagnosis is either superficial or incapable. Purely gastric symptoms respond readily to treatment. In studying the stomach especial attention should be given to position, size, motility and secretory efficiency. Learn to differentiate between important findings and nonessentials.

Dr. Graham mentioned the possible danger of inflating the stomach by chemical gases where the pressure was beyond the control of the physician. The results in a stomach wall weakened by ulceration might be disastrous, or pressure or encroachment on the heart might cause collapse. Air from a bulb introduced through a tube is satisfactory for diagnostic purposes and is always under control of the operator.

While x-ray pictures are usually supplementary and are used to confirm diagnosis, they are probably worth more than any other single method. There is no satisfactory means of diagnosing a carcinoma of the stomach in its early stages, yet the symptoms are such that one's suspicions should be aroused. The diagnosis of stomach lesions should be the work of the general practitioner and 90 per cent. of all gastric ulcers are medical cases.

A very interesting discussion was opened by Dr. D. M. Green who said too many physicians make hasty, snapshot diagnoses in their stomach cases. They are inclined to take the patient's word for his type of ailment. Failure to systematically interrogate the patient is the cause of a large percentage of the physician's failures with these cases, exactly as is true of any other ailment. Accurate diagnosis is a prerequisite to successful treatment. Guess work will not succeed.

In the diagnosis of stomach diseases verbal and physical examinations should be accompanied by the determination of amount of free hydrochloric acid in

the gastric juice, the total acidity and the motility. Am glad to hear that Dr. Graham advocates simplicity in this laboratory investigation. It is a common thing to hear and see advised complicated procedures for the determination of a long list of ferments and other constituents of digestive juices, but after all it is the practical thing which is desired—just what is necessary for the securing of satisfactory results and no more.

Drs. Mix, Quick, C. A. Ball, Trent and Wadsworth also made pertinent comments.

Adjourned.

H. D. FAIR, Secretary.

ELKHART COUNTY

The meeting of April 3, 1913, was called to order at 8 p. m. by President Kuhn in Dr. Kreider's office in Goshen. The minutes of the previous meeting were read and approved. A motion was made and carried that the chair appoint a committee of three to arrange for the June picnic.

Prof. Dean Loree of the University of Michigan addressed the session on the subject of "Senile Hypertrophy of the Prostate Gland." In 1890 and 1891 Belfield and McGill of Chicago performed some of the first prostatectomies. There was no attempt at nicety in performing the operation—they crudely tore out the gland to remove the obstruction. Young of Baltimore perfected and defended the perineal operation while Freyer of London removed the gland by the suprapubic route.

There are certain indications for both routes. A large per cent. of men past fifty—15 or 16 per cent.—suffer from symptoms of prostatic disease. Early in the history of the trouble the bladder begins compensatory hypertrophy—the stenosis of the outlet is overcome by an abnormal development of the muscularis of the bladder wall. In a certain per cent. the more the prostate dams back the urine the more the bladder is distended. There may be as many as 33 ounces of urine in the bladder without symptoms. Following a thorough chilling, excessive drinking, or from one of several other causes, there is acute stoppage.

Some of these cases come to the hospital with a diagnosis of abdominal tumor. A man may go for a long time with symptoms without infection. Infection may come via blood stream, but it is most frequently due to non-surgical cleanliness in catheterization. In most cases, however, symptoms are not apparent till after infection. The case comes to the surgeon then with thickened and rigid bladder walls and a well established infection. The surgeon should tell the patient that 5 or 6 per cent. die after prostatectomy—that he may have fistulas, epididymitis, or he may be a dribbler after operation. Leave it to the patient as to whether he wants a prostatectomy. Advanced age is not a contra-indication.

Dr. Loree cited a case of acute pyelo-nephritis which died promptly before operation was seriously considered. Kidney complications are very important. Functional tests should be done to determine whether or not operation may be made.

A minimal enlargement of a lobe may cause as much distress as a large prostate. Specimen shown. Refer-

ence to the literature shows reports of operative successes—the writers do not tell of their failures. Dr. Loree operates on twenty-five to thirty prostates a year.

Diagnosis: (1) Make a rectal examination; (2) look for residual urine—have patient try to pass urine—then catheterize and measure how much is being dammed back; (3) measurement gives exact elongation of prostatic urethra (withdraw catheter, note just when the urine stops flowing and make a mark at meatus on the catheter); (4) examine with stone sound and determine size of prostate; (5) functional tests of kidneys.

More apt to get post-operative complications by perineal route—not so likely by suprapubic route, but the wound doesn't drain so well. Previous to operation put a permanent catheter in urethra and let the old man sleep. Get him into good physical condition. Use gas anesthesia and the two-step operation in unfavorable cases.

Dr. A. C. Yoder, Goshen: The Society is to be congratulated in having Dr. Loree present the subject. When in the progress of a certain case does it become necessary to operate?

Dr. Loree: It makes a difference where the patient is. If you know a patient is going to stick to you; he has retention; he calls you down to the house frequently to catheterize him. There may come a time when it is not possible to enter the bladder. It is well to warn the patient that when he acquires cystitis he must be operated on.

Dr. D. L. Miller, Goshen: Patient cited who had gastric trouble and a tumor below the umbilicus. Patient was catheterized and tumor disappeared. He was operated on, gall-stones were found in gall-bladder and a small prostate was discovered. Why did not retention of urine give more symptoms referable to prostatic trouble and why the stomach trouble?

Dr. Loree: Stomach trouble was undoubtedly due to the inflammation of the biliary tract. Retention of urine was enough symptomatology to indicate stenosis at bladder neck.

Dr. E. E. Ash, Goshen: Do you sacrifice the entire length of the prostatic urethra? How long do you leave drainage?

Dr. Loree: I remove urethra with the gland by suprapubic route. It is not essential to leave the prostatic urethra. Many operators protest that they leave the prostatic urethra in operating. Such claims are exaggerations to say the least. Following perineal operation I let the patient up early. Leave simple drain in perineum seven or eight days. Keep patient as dry as possible by particular care as to protecting the drainage tube.

Dr. J. A. Snapp, Goshen: Occasionally a patient with prostatic hypertrophy fears that he will lose sexual power following operation.

Dr. Loree: Sexual power may be lost and gained by operation. To younger men it is a question of much importance.

Dr. H. K. Lemon, Goshen: The question of proper drainage is of much importance to the patient. Dr. Alexander Ferguson of Chicago used a particular retractor in perineal operation. Deaver in 1907 used no drainage by suprapubic route. Ransohoff uses a special trocar with cannula to plunge into the bladder via perineum.

Dr. James Mathews, New Paris: A patient operated several years ago in his practice was left with a fistulous opening into the rectum. Patient is now 85 years old and is leading a comfortable life with his vesico-rectal fistula.

Dr. Loree: You must be very careful in suprapubic operation about going through into the rectum. When bowel is opened during perineal operation then go in by the suprapubic route and close up perineal incision.

Dr. G. W. Kirby, Goshen: Cited case (postoperative) with rather persistent fistula which finally healed, and another case with secondary carcinoma. What is the routine treatment for postoperative fistula?

Dr. Loree: There is no routine treatment for fistula. The first year of his operative work he did all by perineal route until they began to come back with fistula. Then he began doing suprapubic operation. Balsam of Peru and curetting sinus will hasten healing. Many enlargements of prostate are cancerous from the first and not hypertrophies. From a pathological standpoint the "hypertrophied" prostate is really a hyperplasia. Sometimes there is cancer tissue in the interior of a large lobe and after removal there is no recurrence. If a prostate is known to be cancerous it ought to be left alone.

Dr. C. W. Haywood, Elkhart, cited case of man who used very filthy catheter.

Dr. B. F. Kuhn, Elkhart: In cases with over-distended bladder is it safe to remove urine all at one time? What methods of controlling hemorrhage after operation? Described instrument used by Young of Baltimore to cut bands obstructing internal meatus (prostatic punch).

Dr. Loree, closing: Never used electricity. Sent but two cases home. One had blood casts in urine, arteriosclerosis and heart lesion. It takes Dr. Loree twenty to twenty-five minutes to do suprapubic operation. What causes senile hyperplasia of prostate is not known. Dr. Young uses the punch in cases showing fibrous change; usually in younger men due to inflammation. Chetwood of New York has galvanocautery. Bottini operation was of that nature. May have fatal hemorrhage by withdrawing urine from distended bladder too quickly. Has never had post-operation hemorrhage. Would use a gauze tied at both ends by strings, one of which was drawn through urethra and the other through the wound to control hemorrhage.

Adjourned.

JAMES A. WORK, JR., Secretary.

HENDRICKS COUNTY

The Hendricks County Medical Society met in regular session at Danville, April 25.

Dr. Amos Carter of Plainfield read a paper on "Side Lights on the Medical Profession."

Dr. C. B. Thomas of Plainfield read a paper on "Rheumatism." There was a general discussion of both papers.

A motion was made and carried that the next regular meeting be held at Plainfield on July 25, the ses-

sion lasting all day, with dinner in a nearby grove. The wives of the members are invited to bring the dinner and attend the sessions.

Adjourned. W. T. LAWSON, Secretary.

JEFFERSON COUNTY

The Society met Wednesday, April 9, at 1:30 p. m. In the absence of both the president and vice-president Dr. Vincent Shepherd presided. The minutes of the last meeting were read and approved. No clinical cases were reported.

Dr. C. C. Bitler of the Southeastern Indiana Insane Hospital read a paper on "Proper Methods of Examination of the Insane." The paper was very well presented.

The secretary read a communication from the district secretary asking for papers to be presented at the district meeting, which occurs in Columbus, May 29. A motion was made and carried to have Dr. Bitler read his paper at this meeting.

The Society met in regular session April 23 with eight members present, the president, Dr. S. A. Whittitt, presiding. After a call for clinical cases Dr. Robert McKeand presented a case of a child suffering with chorea, which was coincident with, or the result of an injury that the patient received about three weeks ago by falling out of a hayloft.

Dr. Fred C. Denny read a paper on "The Influence of General Diseases on the Ear, Nose and Throat."

Adjourned. F. C. DENNY, Secretary.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held at the Gary public library, April 10, at 8 p. m., Dr. Weis presiding. There were seventeen members present.

The minutes of the March meeting were read and approved.

A resolution asking Governor Ralston not to reappoint Drs. Smelser and Spaunhurst as members of the Indiana State Board of Medical Registration and Examination was presented and adopted unanimously.

The regular program gave way to the reports of clinical cases. Cases were presented by Drs. Evans, Hosmer, Laws and Propper. Drs. Yarrington and Petry were selected to read papers for the May meeting. Adjourned.

E. M. SHANKLIN, Secretary.

MADISON COUNTY

The Madison County Medical Society met in joint session with the Delaware County Medical Society, April 22, at 4 p. m., in the public library at Anderson, Dr. G. W. H. Kemper of Muncie presiding. There were twenty-three members of the Madison County Medical Society present and seven of the Delaware County Medical Society.

Dr. Clay Ball of Muncie read a very interesting paper on "Serum Therapy," and Dr. Dwight M. Green read an equally good paper on "Bacterins and Their Application to the Infectious Diseases." The Madison

County Medical Society was to furnish the discussion, but as the hour was late and the time limited, only Drs. Newlin, Alexander, H. E. Jones and Stewart entered into the discussion.

The Society adjourned to the grill room of the Grand Hotel for supper, after which the following doctors' gave five-minute talks on the following subjects:

Dr. Wadsworth—"Getting Out the Members."

Dr. Mix—"Increasing Society Interest."

Dr. Trent—"All Work and No Play."

Dr. Kemper—"The Possibilities of a County Society."

This joint meeting was conceded by all the members to have been the most enjoyable of the year. There was no March meeting on account of the flood.

ETTA CHARLES, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session on Thursday, April 24, 1:30 p. m. at the Plymouth city hall, Dr. Wiseman, the president, presiding.

Those present were Drs. Wiseman, Preston, Stevens, Loring, Eidson, Holtzendorff, Eley and Thompson.

The committee on Illegal Practitioners was continued.

President Wiseman read his annual address on "The Progress of Medicine." This address touched on so many points concerning the public health that it was decided to have a public meeting to which all citizens should be invited to hear Dr. Wiseman's address and other papers of interest to the public.

The following committee was appointed to formulate such a program: Drs. Holtzendorff, Eley, Preston and Stevens.

Dr. Eidson read a paper on "The Cutaneous Manifestation of Lues." This was a good paper and was discussed by nearly all present.

Adjourned.

A. A. THOMPSON, Secretary.

B. W. S. WISEMAN, President.

SULLIVAN COUNTY

The Sullivan County Medical Society met in regular session April 9 at 8 p. m. at the residence of Dr. J. H. Work, Shelburn, with President J. H. Neff in the chair. The minutes of the previous meeting were read and approved.

Dr. J. H. Work presented a paper on the "Segregation and Prevention of Venereal Diseases." He advocated a better knowledge of these diseases by the laity, especially as the dangers the possessor of them offered to the public about him. The paper discussed the various methods in use and proposed the segregation of these diseases. The essayist warmly scored the medical profession for their indifferent and joking attitude toward these matters. The discussion was led by Dr. R. H. Van Cleave, who strongly advocated the notification of the immediate relatives and household of the character and danger of the disease afflicting the patient.

A number of communications were then read from the State Board of Health relative to the resolution

passed at the last meeting regarding the free administration of antirabic serum. The secretary then read the state law governing the same, together with the rules of the State Board of Health. This was followed by a general discussion, during which it became quite evident that the act governing this treatment was passed before the general use of antirabic serum outside of institutes and that in order for the local physician to be allowed to administer this free treatment it would be necessary to have this act amended at some future meeting of our state legislature. A motion was then made and passed that the Society, in view of a clearer understanding of the matter, rescind the former resolution and, further, that the secretary be ordered to so notify the Secretary of the State Board of Health. The entire matter was then referred to the welfare committee with instructions to confer with our state representative concerning the matter.

The secretary then gave a review of the current medical news for the month of March, together with a report of the published reports of the Council on Pharmacy and Chemistry. He was instructed to secure the last edition of the "New and Non-Official Remedies," "Nostrums and Quackery," and "Propaganda for Reform in Proprietary Medicines." He was also directed to secure such reports as he could along these lines from the various state boards of the country.

An inquiry was then presented from Dr. W. N. Thompson for a few missing numbers in order to complete the files since 1905 of the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION in the medical section of the public library.

The motion concerning prices for work in contracts with corporations, lodges, etc., was again brought up for discussion and was again tabled until the June meeting in order to get a fuller consensus of opinion from the Society's membership.

The secretary then presented a request to the members for a short case report of any unusual or rare cases they might have during the year, with the purpose in view of publishing the same in the 1914 Bulletin.

The president announced the appointment of Drs. C. F. Briggs and Paul Higbee as members of the committee to investigate conditions of the drug trade in this county. The secretary was instructed to act as secretary of this committee.

It was moved and passed that the president appoint a special committee of two to have charge of the arrangements and publicity of the public meeting to be held in May.

The members then adjourned to the dining-room where a most enjoyable luncheon was served by Dr. and Mrs. Wrook.

JAMES B. MAPLE, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New

and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 Dearborn Avenue, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

POLYVALENT ACNE VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

ANTIMENINGITIS SERUM.—A polyvalent serum prepared from the blood of horses immunized to the meningococcus of Weichselbaum. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT B. COLI-COMMUNIS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

REFINED AND CONCENTRATED DIPHTHERIA ANTITOXIN (ANTIDIPHTHERIC GLOBULIN).—Put up in a syringe container. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT GONOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT MENINGOCOCCUS VACCIN.—Marketed in packages of three ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT PNEUMOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT PYOCYANEUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT STAPHYLOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT STAPHYLO-ACNE VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT STREPTOCOCCUS VACCIN.—Marketed in packages of six ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

POLYVALENT TYPHOID VACCIN.—Marketed in packages of three ampoules. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

ANTIRABIC VACCINE.—The Antirabic Vaccine, formerly manufactured by the American Biologic Company, Kansas City, Mo. (See New and Nonofficial Remedies, 1913), is now manufactured by the Sophian-

Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 5, 1913, p. 1074.)

ANTIGONOCOCCIC SERUM.—A highly immune polyvalent serum, prepared by immunizing horses against many strains of gonococci. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 19, 1913.)

ANTISTREPTOCOCCUS SERUM.—A polyvalent serum obtained by immunizing horses with increasing doses of streptococci extract and subsequently with live cultures. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 19, 1913, p. 1227.)

NORMAL HORSE-SERUM.—The serum of normal horse blood obtained in a sterile manner and passed through a Berkefeld filter. Sophian-Hall-Alexander Biologic Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, April 19, 1913, p. 1227.)

REFORM IN MEDICINES

THE DEADLY BICHLORID TABLET.—In this country many accidental deaths are caused by the indiscriminate use of mercuric chlorid tablets. The German Pharmacopeia requires that mercuric chlorid pastilles be colored bright red, have a cylindrical shape, be twice as long as thick, be dispensed in glass containers and be labeled "poison." Further, each tablet must be wrapped in black paper which must bear, in white letters, the word "poison" and a statement of the weight of mercuric chlorid. Finally it is specified that they be kept under lock and key. The protection thus given the people of Germany shows the advantages of a "government-owned" pharmacopeia over such as ours which are dominated by commercial interests. (*Jour. A. M. A.*, April 5, 1913, p. 1083.)

MANOLA.—Manola is an alcoholic nostrum with just enough more or less inert medicinal products added to exempt it from the internal revenue tax, but not enough to prevent it being used as a tippie. It is prepared by the Luyties Pharmacy Company, of St. Louis, a homeopathic concern. Since the promoters realize, doubtless, that to put this stuff out under a homeopathic label might not be conducive to stimulating physicians' confidence, Manola is labeled: "Prepared only by the Manola Company, St. Louis." Manola is exploited by means of a scheme which consists in offering the physician three bottles of Manola free on condition that he get his druggist to purchase a dozen bottles. If the scheme "works" the druggist has his shelves loaded up with a dozen bottles of Manola, while the doctor gets three bottles for nothing and, incidentally, he also gets the contempt of his druggist—and of such patients as learn of it. (*Jour. A. M. A.*, April 5, 1913, p. 1092.)

THE GATLIN INSTITUTE.—The Gatlin Institute is one of the many "three-day liquor cures" with which the country is at present afflicted. Judging from a specimen sent in, ipecac seems to be an important part of the "treatment," for which the evidently false claim is made that "by this method failure to cure is impossible." There appears to be a close connection between the "Gatlin Institute" and the "Neal Three-Day Liquor Cure" operated from the Chicago Hospital and which has one Joseph De Barthe connected with it. De Barthe at one time exploited a "rheumatism cure." At the present time De Barthe seems to be pushing

"Kinpo" which is guaranteed to "sober you up immediately." (*Jour. A. M. A.*, April 5, 1913, p. 1092.)

COD-LIVER OIL PREPARATIONS.—A sharp distinction must be made between emulsion of cod-liver oil, which contains the oil, and the so-called extracts, in which no oil is present. When ordering cod-liver oil emulsion, physicians should specify U. S. P. or N. F. preparations, such as glyconin emulsion of cod-liver oil. N. F. contains 50 per cent. of oil and may be made by any competent pharmacist or be purchased from pharmaceutical houses. Maltine with Cod-Liver Oil, containing 30 per cent. or Maltzyme with Cod-Liver Oil, containing 25 per cent. of oil may also be prescribed. As Wampole's "Extract of Cod-Liver" is acknowledged to be devoid of oil and Waterbury's preparation has been proven to be so, both are worthless as cod-liver oil preparations. (*Jour. A. M. A.*, April 5, 1913, p. 1093.)

THE TOXICITY OF SALICYLATES.—P. J. Hanzlik has studied the records of a hospital to determine the relative toxicity of the various salicylic compounds. Given in doses of from ten to twenty grains every hour until symptoms of intoxication appear, it was found that the mean toxic doses for males and females, respectively, are: 180 and 140 grains of synthetic sodium salicylate, 200 and 135 grains of natural sodium salicylate, 120 and 120 minims of oil of gaultheria (methyl salicylate), 165 and 120 grains of acetylsalicylic acid (aspirin) and 100 and 83 grains of salicylosalicylic acid (Diplosal). While, based on the salicyl content, the efficiency of Diplosal is about twice that of oil of gaultheria and aspirin one and two-thirds that of sodium salicylate, the toxic dose of Diplosal is one-half and that of oil of wintergreen and aspirin is six-tenths that of sodium salicylate. The investigation shows that there is no difference between the toxicity of the synthetic and natural sodium salicylates. (*Jour. A. M. A.*, March 29, 1913, p. 957.)

RATTLESNAKE-VENOM (CROTALIN).—An epileptic in Texas was bitten by a rattlesnake. He escaped the secondary infection which so often complicates and adds to the fatalities by poisonous vipers and his epileptic attacks ceased. Dr. Ralph H. Spangler having had some familiarity in using crotalin in the treatment of pulmonary tuberculosis, attempted to reproduce the favorable issue of the epileptic's accident. That any measure of success sufficient to justify the adoption of crotalin treatment for epilepsy has accrued to his efforts is not to be concluded from the available reports. There are a number of good and sufficient reasons why cautious physicians should shun the administration of this treatment and advise against it. (*Jour. A. M. A.*, March 29, 1913, p. 1001.)

DIXON'S TUBERCULIN.—According to Dixon a peculiar branched form of the tubercle bacillus develops when the bacillus is grown at an elevated temperature. Grown under these circumstances the tubercle bacilli may become non-acid-fast, which is ascribed to loss of the waxy envelope. According to Dixon experiments on guinea-pigs show that the branching, non-acid-fast forms are less virulent than the original cultures from which they are produced and that they induce the development of marked resistance to lethal doses of virulent tubercle bacilli. Dixon has developed tuberculins for practical purposes consisting on the one hand of watery extracts of tubercle bacilli and on

the other of suspensions of "degreased bacilli," the theory being that in this way are obtained antigens of little toxicity, but of good antigenic virtue. (*Jour. A. M. A.*, March 29, 1913, pp. 993 and 1002.)

CONCENTRATED PLUTO WATER.—The claims made for Pluto Water of the French Lick Springs, Indiana, are rivalled only by those made for such patent medicines as Peruna, Duffy's Malt Whiskey or Lydia Pinkham's Compound. The essential constituents of the water are said to be the sulphates of sodium, magnesium and calcium, chlorid of sodium and the carbonate of magnesium. It is, however, only the so-called "concentrated" Pluto Water that is found on the market. The impression is given in all of the advertising matter that the "concentrated" Pluto Water is "natural" Pluto Water concentrated to ten times its "natural" strength. From a comparison of the composition of the "natural" Pluto Water with that of "concentrated" Pluto Water as given out by the promoters shows that the latter has more than eighty times as much sodium sulphate and nearly one hundred times as much magnesium sulphate as is found in the "natural" water. This shows that "concentrated" Pluto Water bears little relation to the "natural" Pluto and that it is essentially a solution of Epsom salt and Glauber's salt. The only indication given on the label of the fact that it is not the "natural" Pluto Water boiled down, is the statement, in small type: "Fortified with some of the natural products of the water." (*Jour. A. M. A.*, March 29, 1913, p. 1013.)

SYNTHETIC VERSUS NATURAL SODIUM SALICYLATE.—The Committee on Therapeutic Research of the Council on Pharmacy and Chemistry is investigating the claimed superiority of the "natural" over the "synthetic" sodium salicylate. Two reports have been published, namely, the critical review of the literature by Eggleston which showed that the evidence in favor of natural salicylates is very slight and that the evidence against the synthetic salicylate is even less, and the pharmacologic study by Waddell which showed that there is no difference in the physiologic action of the two kinds of sodium salicylate. Now the results of a chemical investigation made in the A. M. A. Chemical Laboratory are reported by W. S. Hilpert. An examination of eleven brands of sodium salicylate ranging from the cheapest synthetic sodium salicylate to the highest-priced "natural" kind showed that, except for some differences in the color of aqueous solutions, all the brands were essentially alike in properties and composition. (*Jour. A. M. A.*, April 12, 1913, p. 1137.)

COUDREY SENTENCED.—H. M. Coudrey, whose disguised acetanilid mixture, Labordine, was exposed by the Council on Pharmacy and Chemistry, has been found guilty in the federal courts of using the mails to defraud in the promotion of what were known as the Continental Assurance Company of America and the International Fire Assurance Company of America. (*Jour. A. M. A.*, April 12, 1913, p. 1161.)

ANTI-KAMNIA.—In a booklet sent out by the Antikamnia Chemical Company both to the medical profession and to the public, a paragraph is quoted from an article by Dr. John H. McIntyre that appeared in the *Journal A. M. A.*, July 4, 1891. The reproduction of the McIntyre quotation is evidently adopted by the Antikamnia people as a means of "playing even" with the *Journal* for the unpleasant things which, in the

past, it has said about Antikamnia. The Antikamnia Chemical Company carefully avoids giving the date when the article appeared. (*Jour. A. M. A.*, April 12, 1913, p. 1172.)

SAFE DIABETIC FOODS.—So far but one product—Casoid Flour, Thos. Leeming & Co., New York—has been found eligible for inclusion with New and Non-official Remedies. The Chemical Laboratory of the Association is at present examining several products of this kind and when the investigation is complete the results will be published. (*Jour. A. M. A.*, April 12, 1913, p. 1172.)

THE "CLINICAL REPORT" FALLACY.—An editorial in the *Journal of Cutaneous Diseases* entitled "Proprietary Remedies and the Dermatologist" closes with the following: "Hippocrates said 2,400 years ago, in words which Osler is fond of quoting, that 'Experience is fallacious and judgment difficult,' and it is an aphorism that one may well ponder when he is about to be carried away by clinical impressions in the estimation of the value of some new therapeutic agent. This country is sown with old indorsements of proprietary remedies based on clinical impressions that still come back to plague their authors. There is a proprietary vegetable alterative for syphilis of large sale, whose first credential is the testimonial given by one of America's greatest medical men on the basis of clinical impressions in the days of forty or fifty years ago, when 'alterative' was a conception to conjure with like 'radioactivity' is now. There is a lithia water for dissolving uric acid stones to whose efficacy one of America's ablest and best physicians gave written testimony. If there is anything that the history of clinical therapeutics proves, it is that experience is fallacious and judgment difficult." (*Jour. A. M. A.*, April 19, 1913, p. 1243.)

A MAIL-ORDER SCHOOL.—Walter C. Cunningham, who operated Marjorie Hamilton's Obesity Cure, has opened a correspondence mail-order school. As a result of his teaching three "graduates" offer a depilatory for sale through advertisements in a Chicago paper. Samples of the three preparations—sold as Everett's Hair Foe, McNeal's Velvet Skin Depilatory and Our Velvit Skin Depilatory—when examined in the A. M. A. Chemical Laboratory were found to be alike and consisted of barium sulphid and starch. (*Jour. A. M. A.*, April 19, 1913, p. 1243.)

REXALL ORDERLIES.—Examined by the Kansas State Board of Health they were found to contain phenolphthalein as their essential constituent. The Rexall products are sold by the United Drug Company which consists chiefly of druggists who, not content with the profits derived from the sale of "patent medicines" started a cooperative organization for their manufacture and exploitation. (*Jour. A. M. A.*, April 19, 1913, p. 1244.)

ANTIMERISTEM-SCHMIDT.—Physicians should be warned that it is useless to send abroad for this serum at present. Under the government rules requiring a license before serums or allied products may be imported into this country, it will not be admitted because no license for its sale has been issued. (*Jour. A. M. A.*, April 19, 1913, p. 1244.)

STANDARDIZATION OF DISINFECTANTS.—Believing the general adoption of a standard method for the valuation of disinfectants important, the Council appointed

a committee to consider the matter. On recommendation of the committee the Council adopted the Hygienic Laboratory phenol co-efficient method. This method has some of the features of the Rideal-Walker method as well as of the Lancet method, but contains important modifications. The method is coming into quite general use and probably will replace the other methods for the standardization of disinfectants. (*Jour. A. M. A.*, April 26, 1913, p. 1316.)

FATHER JOHN'S MEDICINE.—When analyzed two years ago Father John's Medicine was found to be essentially a cod-liver oil emulsion. The term "Guaranteed under the Food and Drugs Act" on its label means only that the manufacturer has undertaken to protect the retailer in case the product is found to be adulterated or misbranded. (*Jour. A. M. A.*, April 26, 1913, p. 1316.)

LOPEZ.—Lopez is called by its exploiters, the Lopez Remedy Co., Wichita, Kansas, "the great Hot Springs remedy." Although Lopez is claimed to be a specific for syphilis, the analysis indicated that it differed but little from the various "sarsaparilla compounds" put out by "patent medicine" fakers. Whatever benefit may be derived from it is due to the potassium iodid and the laxative drugs which it contains. (*Jour. A. M. A.*, April 26, 1913, p. 1317.)

LIQUID PETROLATUM IN CONSTIPATION.—Liquid petrolatum has been recommended in the treatment of constipation, but it has not received much attention. Its action is supposed to be that of a lubricant. Its use must be regarded as in the experimental stage. (*Jour. A. M. A.*, April 26, 1913, p. 1320.)

BOOK REVIEWS

CLINICAL LABORATORY METHODS. A manual of technique and morphology designed for the use of students and practitioners of medicine. By Roger Sylvester Morris, A.B., M.D., Associate Professor of Medicine in Washington University, St. Louis. D. Appleton & Co., New York and London, 1913. 344 pages, cloth, price, \$3.00.

This is an excellent book for the use of students and general practitioners of medicine. It gives in detail the means of detecting the abnormal in urine, gastric contents, feces, blood, sputum and puncture fluids. The aim of the author has been to include only such methods as experience has shown to be accurate and trustworthy. The significance of the abnormal is not discussed.

The findings of the laboratory as an aid in diagnosis are so essential that it is of the utmost importance that every physician have a working knowledge of laboratory methods and this little volume is a concise and up-to-date reference book which will meet the wants of students and general practitioners.

A feature of especial interest is the specific reference to sources of error in the various methods employed. This is especially valuable to those who are not familiar with the uncommon reactions or results that may be misinterpreted by the inexperienced. A few well-chosen illustrations, some of which are in color, add to the clearness of the text.

OPHTHALMOLOGY FOR VETERINARIANS. By Walter N. Sharp, M.D., Professor of Ophthalmology in the Indiana Veterinary College. 12mo of 210 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$2 net.

Not being familiar with diseases and injuries of the eyes in animals and, as the author says, the literature on the subject being extremely limited, we are unable to review the book from the standpoint of the veterinarian. However, careful reading of the book shows that it is an adaptation of well-known knowledge pertaining to the human eye and the information is presented in a concise and readable form.

If there is any one criticism we would offer it is that the author has followed too closely some of the well-known works on ophthalmology as applied to the human eye, though even this criticism perhaps falls short in view of the inference on the part of the author that nearly all treatment as applied to the human eye may be beneficially applied in the treatment of injuries and diseases of animals' eyes. The book will undoubtedly prove extremely useful to veterinarians and lead to more extended study of the subject.

SURGICAL CLINICS OF JOHN B. MURPHY, M.D., AT MERCY HOSPITAL, CHICAGO. February, 1913. Published bi-monthly by W. B. Saunders & Co., Philadelphia and London. Paper, 179 pages. Price, per year, \$8.00.

This number, like those preceding, deals with a number of very practical conditions and is particularly valuable in that it opens with an address and description of an operation by Mr. W. Arbuthnot Lane of London on the subject of Open Treatment of Fractures. This address is characteristic of Mr. Lane's modesty and simplicity, and among other valuable things contains the report of the Committee to the British Medical Association on The Treatment of Fractures. If there is any one point above all others to be emphasized in reviewing Mr. Lane's address it is his wisdom in the selection of cases suited for operation. Dr. Murphy shows several skiagrams of their operative work on the femur in his clinic which are interesting. We note, however, in his discussion on Case 2 an error in diction in that he speaks on the fracture of the "anatomical neck" of the femur.

Other misstatements that were noted by the reviewer were on page 109, the word leukocytosis in connection with a leukocyte count of 7,200 to 7,500. Again on page 116 in discussing acute appendicitis the author advises against operation on patients having typhoid ulcers of the appendix, even though several cases of perforation have occurred. Construed literally this is a mistake, for we know from the experience of the last few years in surgical treatment of the complications of typhoid fever that operation has not only not decreased the patient's chance for recovery, but, if anything, the operation seems to have benefited them. Of course no one would consider a laparotomy for a simple typhoid fever with lesions in the appendix or in the ileum, but should perforation of any portion of the bowel occur or even be suspected, immediate operation should be resorted to.

These few mistakes of loose diction simply emphasize what we have said in a previous review of this periodical, that in a verbatim report of any clinic

there must of necessity creep in certain unfortunate errors of diction which would be eliminated in a carefully prepared paper on the subject.

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. DeLee, A.M., M.D., Professor of Obstetrics at the Northwestern University Medical School. Large octavo of 1,060 pages with 913 illustrations, 150 of them in colors. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$8.00 net; half morocco, \$9.50.

In a medical review it is absolutely impossible, no matter how lengthy the review may be, to do justice to so masterful a work as this long-awaited text-book of DeLee's has proven to be. For those of us who have been fortunate enough to come in contact with the author's own work in his large dispensary and hospital practice in Chicago, the advent of the book fulfills a long-cherished wish. We doubt if the obstetrician lives who has put in so much time on detail and technique for the benefit alike of both patient and student as Dr. DeLee. As a teacher of obstetrics he has few peers and as an author of a text-book on the subject his results speak for themselves in the volume under consideration.

Having grown from a volume of notes on obstetrics, long used as a text-book by his classes, the present work appears as a magnificent volume of over one thousand pages of large size and with much of the subject matter in fine print. This latter feature has been utilized for what the author considers the less important matter and certain details of treatment, and serves the purpose of conservation of space in a book already as large as can be well handled. The richness of illustration and the completeness of the legends contribute largely toward the elucidation of the author's thoughts. While lengthy bibliographies have been avoided, yet the works of the world's greatest authorities and the recent literature have been tersely abstracted and combined with the author's own experience of twenty-one years' teaching.

The subject matter has been divided into four parts: the physiology of pregnancy, labor and the puerperium; the conduct of pregnancy, labor and the puerperium; the pathology of pregnancy, labor and the puerperium; and operative obstetrics. Such divisions of subject matter contribute largely to the convenience of arrangement in medical curricula as well as being conducive to a systematic study of the subject by the general practitioner.

Throughout the whole work one finds the original and forceful methods of presentation characteristic of Dr. DeLee and, because of the enthusiasm in his work, one hesitates to lay the book aside. It were futile to attempt to review the subject matter *in toto*, but one or two things deserve mention. For instance, the author rightly insists on a minimum number of internal examinations being made of the woman in labor. Again he does not hesitate to condemn the too frequent application of the forceps for other purposes than the safety of the mother and child. He has changed somewhat his ideas on anesthesia, having practically abandoned chloroform and using less and less of ether or any other anesthetic because of the possible injurious effects upon both child and mother. The use of thyroid extract in eclampsia and pituitary extract in uterine inertia are only mentioned, without any expression

from the author concerning his personal experience in the use of either of them. The high forceps operation is justly condemned and the author does not hesitate to recommend Cesarean section as a method of delivery entailing less permanent effects in the way of prostration and nervous shock than a hard instrumental labor through the natural passages, thus coinciding with the opinions of Reynolds and Newell.

The most conservative reviewer can safely stamp this as probably the most comprehensive and valuable single volume text-book on obstetrics now printed in the English language.

THE CAREER OF DR. WEAVER. By Mrs. Henry Backus. Illustrated by William Van Dresser. Cloth, pp. 379. Price, \$1.40 postpaid. Published by L. C. Page & Co. Boston, 1913.

In the routine of medical reviews it is refreshing now and then to come across a well written novel which appeals particularly to the medical man. Such is the case, however, with this one. The central figure of the story, Dr. Richard Weaver, by dint of hard work, has prepared himself well for the practice of a surgical specialty: namely, laryngology. Early in his career quite happy in the establishment of a free medical clinic, he later utilizes this as a feeder for his private hospital, maintained for the accommodation of his more exclusive patrons. In his mad rush for the acquisition of a large clientele among the so-called elite, and the compensation thereto attached, he leaves no stone unturned for self-advertisement in a pseudo-professional way. As a matter of fact, however, he is not honest in that he indulges in fee splitting and the wide distribution of reprints of articles largely worked up by assistants, without giving such assistants due credit for their work. Ere long he is overcrowded and sends for his brother Jim, a young practitioner in a small town, to come and act as his assistant. Jim is a broad-gauged, honest, whole-souled fellow who believes in a square deal to everybody. Content for a time to act in the subordinate capacity to his brother he eventually becomes absolutely disgusted with the commercial spirit pervading his brother's institution and threatens to leave. The time comes, however, when the tide turns, and the occasion is afforded for the awakening of Dick's conscience, and a dilemma is at hand, wherein brother Jim saves the day.

The book is so replete with evidences of a familiarity with some of the inner things of medical practice that one wonders how it could have been written by any layman who has not enjoyed a close contact with a modern physician. We understand, however, that the author is the wife of a Cincinnati lawyer, the mother of three wholesome children, who is more interested in broad questions of public life and welfare than she is in woman's rights. In fact her argument for a National Department of Public Health is as strong and logical as could be put forth by any medical man specializing in that work. Again her allusion to the home-making and family life of a woman as her legitimate sphere brings her novel close to the heart of every physician. No one, either medical man or layman, can fail to enjoy this book to the fullest extent, and we hope for it the widest publication because we believe that it and its like blaze the way for a wider dissemination among the laity of knowledge of some of the medical abuses that are now so rampant.

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VOLUME VI

FORT WAYNE, IND., JUNE 15, 1913

NUMBER 6

ORIGINAL ARTICLES

ANTITYPHOID VACCINATION *

WM. SHIMER, M.D.
INDIANAPOLIS

More than 35,000 people die of typhoid fever in the United States every year, and more than 300,000 other persons spend three or more weeks in bed on account of this disease during the year.

The eradication of typhoid fever presents some of the most difficult problems in preventative medicine. Cities, towns and rural districts each present their own peculiar problem which requires special investigation.

In large cities that have efficient garbage disposal and sewage systems, the prevention of large massive epidemics is dependent on a water and milk supply absolutely free from typhoid bacilli. The water must be filtered or chemically treated. All of the milk must be pasteurized under careful regulations.

Fifty American cities with a population of 20,000,000 people have a water-supply practically free from typhoid bacilli at all times and a milk-supply partially pasteurized. These cities have a death-rate of 25 per 100,000. Thirty-three principal European cities with 31,500,000 people have a milk-supply and water-supply always free of typhoid bacilli. As a result they have a typhoid death-rate of only 6.5 per 100,000. The fifty American cities have a death-rate per 100,000 of eighteen and one-half above the thirty-three European cities. Three thousand, six hundred more persons die of typhoid in these American cities than would die in European cities of the same size. The 6.5 deaths per 100,000 in European cities represents the residual deaths that are

due to contact with the sick, "bacilli-carriers," flies and infected food.

In the smaller towns the water-supply is the source of a varying percentage of typhoid cases depending on the universality of its use and its freedom from typhoid bacilli. Most towns have many private wells but these are very seldom the source of infection, except in some places of peculiar geological formation. The milk-supply may be a source of infection the number of cases depending on the amount of milk supplied by any one man. That is, if a dairyman who supplies many patrons should get his milk infected there would be more cases than if the milk of a smaller dairyman should be infected. The surface privies no doubt play a very large part as a source of infection. They are accessible to flies which breed so abundantly where there are so few provisions made for the disposal of garbage, manure and other wastes. Many homes are insufficiently screened so that flies gain ready access to food on the table. Personal contact with the sick and "bacilli-carriers" also furnish many cases. The spirit of neighborly friendliness which leads many of the people of a community to assist in taking care of sick is also the source of many infections.

The rural or strictly farming districts present a situation practically free from water and milk as sources of infection. Infected flies perhaps furnish a few cases. Personal contact with the sick and with "bacilli-carriers" furnish a vast majority of the cases.¹ Here again the nursing of the sick by relatives and friends who know absolutely nothing about the infectiousness of bowel and urine discharges is the cause of an enormous number of infections.

There are no two beliefs about typhoid as pernicious as that this disease is not contagious

* Read before the Indiana State Medical Association, at Indianapolis, October, 1912.

1. Freeman, A. W., and Lumsden, L. L.: Amer. Jour. Pub. Health, Vol. 2, No. 4, 1912.

and that water is the source of most infections.²

Perhaps we can make this typhoid problem more real by stating that the average yearly death-rate in Indiana during ten years ending 1910 was 37.7 per 100,000. Our own city with a water-supply above suspicion and a milk-supply much of which is pasteurized had a death-rate in 1909 of 22.3, and in 1910 of 28.5 per 100,000.

Now with such a comparatively high death-rate locally and generally it seems that every means should be used to improve the situation. There is no doubt that typhoid can be completely eradicated by pure water and milk, and by control of sick and "bacilli-carriers." Typhoid presents the same difficult sanitary problems as tuberculosis, e. g., that of destroying the bacilli as soon as they leave the body.

All these various sanitary measures are very difficult to carry out and many times there is a slip some place. The ability of antityphoid vaccination to nullify these slips and to protect all who have not had typhoid from being infected by typhoid bacilli has been thoroughly proven by its success in the various armies of the world. The failure of vaccinations to prevent typhoid can usually be shown to be due to a single injection instead of three or four as required, or to too high temperatures used in killing the bacilli, or to a strain of bacilli that do not produce the required kind of immunity.

Leishman reports³ that the morbidity rate per 1,000 among the vaccinated was 5.39 and among the unvaccinated 30.4. The mortality rate among those who developed the disease was 8.9 among the vaccinated and 16.9 among the unvaccinated. Among the German troops in Southwest Africa, the vaccinated had a morbidity rate of 57 per 1,000, the non-vaccinated 99. The deaths were four times as many among the second as among the first.

The success of antityphoid vaccination among the troops stationed in Texas last year is almost beyond belief, for there was not a single death from typhoid. Among fewer troops in Florida during the Spanish-American War, there were 2,693 cases and 248 deaths. Of course, strict sanitary measures and climate had something to do with the success in Texas, but not everything by any means, for there were several cases among the people of San Antonio, just outside of the camp, and the soldiers mixed freely with townsmen, eating and drinking everywhere in the town.

Another very convincing proof of the value of antityphoid vaccination was that of a Georgia

regiment of 736 persons, which, after being vaccinated, marched twenty-one days in a typhoid-infected country without any attention to boiling the water used, and not a single case of typhoid developed.⁴

Richardson and Spooner⁵ inoculated 100 nurses at the Massachusetts General Hospital, and none of the nurses have been infected since. We have vaccinated several of the nurses at the Methodist and City hospitals without a single subsequent infection. Grover⁶ reports no infections among eighty-eight nurses taking care of the sick in a large water epidemic in Iowa. Among an equal number of non-vaccinated nurses, 14.6 per cent. developed the disease.

For some time the Bacteriological Laboratory of the Indiana State Board of Health has been furnishing antityphoid vaccine free on request to the doctors of the state. More than 100 persons have thus been vaccinated. We have complete records of forty-five vaccinated persons whose reactions can be classified as follows:

| Dose | Mild Reaction | Moderate Reaction | Severe Reaction |
|------|---------------|-------------------|-----------------|
| 1 | 31 | 12 | 2 |
| 2 | 38 | 7 | 0 |
| 3 | 40 | 5 | 0 |

The temperature in only two cases went above 100 F. In many of the cases there was a local redness, swelling of the skin, lymphangitis and enlargement of the adjacent lymph glands. The general symptoms were malaise, headache, fever and occasionally nausea. None of these symptoms lasted more than twenty-four hours.

It is best to give the vaccine about 4 p. m., for by morning most of the major symptoms will have disappeared.

It has been estimated that three out of every one hundred persons who have had typhoid fever become "bacilli-carriers" for a longer or shorter time. Park estimates that one out of every five hundred persons who have not suffered from typhoid is a bacilli-carrier. If 350,000 people suffer from typhoid every year, then more than 10,000 "bacilli-carriers" are added to those already existing; thus we can see what an enormous number of "bacilli-carriers" there must be everywhere.

Water, milk and contact with the sick can be controlled, but the problem of "bacilli-carriers" is almost beyond the possibilities of sanitary regulations. We believe that there is no better means than antityphoid vaccination for protecting the susceptible against the hidden source of infection by "bacilli-carriers."

2. Mankato Epidemic of Typhoid Fever, Jour. Inf. Diseases, Vol. ix, No. 3, 1911.

3. Harben Lectures, July, 1910.

4. Lyster Military Surgeon, 1911.

5. Boston Medical and Surgical Journal, 1911.

6. Jour. of Infect. Diseases, Vol. 10, No. 3, 1912.

CONCLUSIONS

1. Antityphoid vaccination seldom gives severe reaction.
2. Most reactions have disappeared in twenty-four hours.
3. Antityphoid vaccination is an almost absolute protection against typhoid infection, particularly that of "bacilli-carriers."
4. Universal antityphoid vaccination will do as much to eliminate typhoid as small-pox vaccination has done to eliminate small-pox.

DISCUSSION

DR. C. S. WOODS (Indianapolis): I want to congratulate Dr. Shimer on the splendid paper he has presented. I believe he will excuse me if I do not discuss his paper adequately nor fully, because the hour is late. He was good enough to send me a copy of this paper, and I therefore was able to get his point of view and understand what he wanted to say.

There is one thing which I do not know what importance he attaches to, but which he did not mention, and that is the length of immunity which the vaccine causes. I do not want to magnify that point, because essentially it is necessary to know whether or not we get the immunity, and in that way the doctor has splendidly reviewed the literature; but naturally we would like to know how long we are going to enjoy immunity after we are vaccinated. We know something about the length of time we are immune after being vaccinated against small-pox, but I am sure we have not had enough experience with antityphoid vaccine to determine how long we are going to be immune after inoculation. But we do feel, nevertheless, that under certain conditions, particularly in the army, where great bodies of men are moving from place to place, antityphoid inoculation should always be done. I think our State Board of Health, as well as the City Board of Health, have done wisely in calling the attention of the public to the great advantages of antityphoid inoculation, particularly for those people whose business or occupation calls them from place to place.

In a city whose water-supply is poor, and whose milk-supply is fairly reliable, and in which there are from ten to twenty thousand privy vaults, you must expect typhoid fever—and we have it, and that is the explanation, and that is largely the reason why typhoid fever is a disease of the rural districts rather than of the cities.

DR. A. W. BRAYTON (Indianapolis): I have read Dr. Shimer's paper and endorse it fully. The subject of prevention of typhoid fever by vaccination is to me of personal interest. I remember when Dr. Harvey Wiley lay with typhoid for three months, and I remember my own four months' siege of it, when Drs. John H.

Oliver, S. E. Earp, George Coble of New Augusta, and others, young doctors then, came night after night to take their turn at my bedside. The late Dr. G. B. Harvey, the Nestor of our profession, was the physician in charge of both Dr. Wiley and myself. My son had typhoid in Spokane, and it cost a thousand dollars to secure the restoration that vaccination would have made unnecessary, so I have had the rest of my family vaccinated. I am especially relieved that my son, now an intern in the City Hospital, is safe against infection. I regard it as a crime to ask any young woman to go into an institution where she is laying down her life, perhaps, without having prevention against typhoid fever, for the chances of having it in a hospital are eight to one against having it as a school teacher or in the ordinary walks of life. It has absolutely protected our army of 12,000 on the Mexican border for over a year, and made it certain that if a man dies of typhoid in either the regular or volunteer troops of the United States Army, there will be strict inquiry as to why the private was not protected against this old plague of the Spanish-American War.

I hope that each and all of us will become advocates of typhoid prevention in our respective spheres. I do believe that we have before us now the possibility of stamping out two of the great captains of the messengers of death—typhoid fever and syphilis—in a higher degree than ever before. It takes a long time to impress prevention on the people, and get them to accept and to make use of the insurance that modern medical science affords them.

I will not take more time. I do not regret that this paper could not have been read before two or three hundred members of our society and had a large discussion, because its teaching is being printed everywhere. There is not a medical journal but what has printed the details; the magazines and newspapers have made it well known to the laity. There will come a time when it will not be so important to teach the physicians as to teach the laity. The laity are becoming wise, and when we have a wise laity to deal with, the nation can get along with a poorly educated profession, or better yet, compel the medical profession to keep abreast of medical science as taught in biological laboratories.

DR. SHIMER (closing): I want to thank the discussants for their kind consideration, and I will simply say as to Dr. Woods' question, that this is such a big problem it is hard to say how long the immunity does last; but Major Russell says from two and a half to three years, and I think he is in the best position to know of anyone in the United States.

I want to make two pleas. One is that all physicians who have typhoid cases will immediately immunize the rest of the family; also, that they agitate the compulsory vaccination of all

persons admitted to public institutions, such as asylums, prisons and orphan homes. For, if you have a lot of susceptible people in a public institution and there is infection some place, say in the kitchen, you will more than likely have a very large epidemic, which the institution will be unable to handle. I think vaccination ought to be compulsory, the same as small-pox. In the case of nurses, I think hospital authorities ought to feel a responsibility.

THE QUESTION OF ABDOMINAL DRAINAGE *

J. H. WEINSTEIN, M.D.
TERRE HAUTE, IND.

Abdominal drainage is still a matter for discussion, there being great differences of opinion in both theory and practice. There have been comparatively few exhaustive researches along this line when one considers its great importance.

Hunter Robb carefully studied the question and published his tabulated findings. Clark of Baltimore, in Kelley's clinic in 1896, made an analytical study of 1,700 abdominal sections, and Yates of Chicago, in 1905, went to Johns Hopkins and gave us undoubtedly the most complete, comprehensive and masterful review and conclusions of abdominal drainage that has ever been published. But the greatest fault I find, after all my reading, study and experiments, is that we have not the courage of our convictions. We have not the back-bone to stand by our proofs.

The idea that many men still hold, that the general cavity can be drained by one or more drains for more than a few hours (six to eight) is preposterous. We bury a non-absorbable suture and feel certain that unless it is infected it will become encysted in a few hours. So why not all drainage materials placed in the cavity?

Penrose says, "Theoretically an aseptic unirritating drainage tube ought never to become shut off by adhesions from the general abdominal cavity, since adhesions imply more or less irritation;" but Yates adds, "Every tangible foreign body is a peritoneal irritant."

Drainage as a term in abdominal surgery is a misnomer. The vast majority of men who use drainage, except in suppurative, gall-bladder or cases of this nature, do not use it as drainage, but as a dam to wall off the general cavity from an infected area, to localize the infection, and not to drain the cavity. The dam is left in place

from twelve to thirty-six hours and removed. By this time it has become completely surrounded by a thick exudate effectually walling off the general cavity, and if there has been any infection, it is localized within this area.

I think this much-discussed question could be simplified were we more careful in our nomenclature and not leave it to the peritoneum to decide whether it is being drained or walled off.

I made a few experiments on the dog this summer, some of them septic and others aseptically carried out. All forms of different kinds of drainage ever used were tried, for periods ranging from eight to seventy-two hours.

I found by placing drains in the lower abdomen, first, that within six to eight hours afterwards, coloring matter injected into the upper cavity would not show at the drain; second, that at post-mortem, eight hours after placing drains in place, they were surrounded by a plastic exudate completely walling off the general cavity; third, that in the instances in which gauze was used, the fibrin had completely blocked the meshes and the discharge seen at the edge of the wound was a serum exuded from the new plastic wall thrown around the drain; fourth, that at the end of twelve hours the wall had become a thick tenacious membrane becoming tougher each day and at the end of seventy-two hours, unless general peritoneal infection occurred, had become so tough that it could not be broken down without injury to surrounding tissue.

The condition of the drain track varied slightly with the different materials used, but, generally speaking, the encystment was the same. During the first twelve hours the gauze is very hard to remove, as the fibrin fills the meshes and it clings tenaciously to the surrounding tissue, but by the end of seventy-two hours the encysting wall begins to become organized and the exudate from this disorganizes the fibrin enmeshed in the gauze and so loosens it from the surrounding tissue. At the end of three to four days it can easily be removed, but, in the meantime, that is after twelve hours as the maximum, the gauze has ceased to act as a drain, and contrarily has been doing duty as a plug. It is a well known fact that gauze will drain even serum but a few hours, blood and pus not at all. The meshes soon become filled and clogged and its capillarity ceases.

As early as 1878 Von Alt demonstrated that rubber tubes became encapsulated in thirty-six hours, and that with through and through drainage with a fenestrated tube, it was impossible to force fluids into the abdomen after twenty-four hours.

* Read before the Indiana State Medical Association, at Indianapolis, October, 1912.

Körte found it impossible to drain the cavity by multiple drains in the pelvis. Fowler placed twenty-one wicks in different parts of the abdomen, and soaked not only the dressing, but the bedding, demonstrating that the amount of drainage secured is in exact proportion to the amount of drainage material used, and yet the fluid did not come from the general peritoneal cavity, but from the areas drained.

Peritoneal drainage must be local, and unless there is something to be gained by making an area extraperitoneal there is, aside from hemostasis, nothing to be gained or no justification for its use.

One aspect of this problem which I think few realize is not only the possibility, but the probability of infection from without in.

Hunter Robb showed forty-four organisms in and on all tubes in spite of the most scrupulous and painstaking care.

Clark found in his series of 1,700 cases organisms in every instance, proving conclusively that infection was very liable to follow from without in.

This easily accounts, in drained cases, for many of our unexplainable suppurative abdominal wounds, prolonged convalescence, post-operative abscess in track, localized abscess at bottom of track, fecal fistula, etc., necessitating secondary operation. And, on the other hand, when these complications, or I may say catastrophies have occurred, we have saved our conscience by saying we saved a life by drainage.

Woods of Philadelphia says he drained 25 per cent. of his cases. Alsehausen, in 1,555 laparotomies, drained none, and the mortality was no higher than when he used drainage. Hunter Robb, in 222 unselected laparotomies, of which 65 were suppurative, drained in only one case, and had but one death. He did not say whether or not the death was the drained case. Withrow, out of 150 laparotomies, drained but 15 septic and gall-stone cases. In a series of 100 similar cases, at Johns Hopkins, in the drained series the mortality was 13 per cent., and in the undrained series 6 per cent.

Tate's dictum, "When in doubt, drain," has still its enthusiasts, but they remind me of the fellow thus described by Brown: "The religious devotee leads the best life he can and endeavors to render innocuous his final shortcomings by prayer; so we do the best we can in an aseptic way and leave the rest to drainage."

Yates tersely sums up the problem thus: "If drainage of the peritoneal cavity is possible, it is limited by, 1. The tissue requisite to the functional seclusion of the drain through (a) the

close application of serous surfaces to the drain, (b) and its subsequent encapsulation in adhesions. 2. The physical laws governing (c) the removal of the drainage material from the tube, and (d) the restricted (absorption) capillary action of the gauze.

CONCLUSIONS

Drainage of the peritoneal cavity is physically and physiologically impossible. Relative encapsulation of the drain is immediate and in six to twelve hours absolute. The serous external discharge is an exudate due to the irritation of the contiguous peritoneum by the drain. There is a similar inward current from the potential into the general cavity. Irrigating through drains is futile and dangerous.

I wrote a number of letters to surgeons in different parts of the country and asked the following questions:

1. Do you drain if the cavity has been soiled with (a) pus, (b) tumor contents, (c) fecal matter, (d) excessive amount of blood, (e) external accidental infection?

2. If so, what method of drainage do you use?

3. How long do you consider drainage efficient?

4. In what time do you consider the actual cavity would be converted into a potential one?

5. Do you believe the upper cavity can be drained by culdesac or suprapubic drainage?

6. In penetrating abdominal wounds with soiling of the general cavity, do you consider one drain sufficient or is it necessary?

Would time permit my reading all the answer I received you would be greatly interested to hear the diametrically opposite opinions on many of these questions. I think the concluding paragraph of the letter received in answer to these questions sent Dr. W. J. Mayo about sizes up the situation as it is to-day. Dr. Mayo says, "Of course, there being five men at work in this hospital means that there is a certain amount of difference of opinion."

The most generally adopted modern indications for drainage can be summed up under three heads, I think:

1. Presence at the time of operation of an established local or general infection of the peritoneum.

2. The probable subsequent development of such infectious processes.

3. When at the termination of the operation there remains material that cannot be spontaneously absorbed.

And, on the other hand, to obviate the necessity of thoughts of drainage:

1. Asepsis.
2. Hemostasis.
3. Avoid bruising or injury.
4. Wall off general cavity, if danger of infection.
5. Preserve peritoneum.
6. Avoid exposure and chilling.
7. If rupture of infective material occurs, (a) irrigate with normal salt solution or (b) mop out gently.
8. Fowler's position.
9. Murphy method proctoclysis.

The general consensus of opinion as to the best material for drainage is as follows:

Rubber goods of some form next to the peritoneum either in the form of split or fenestrated tubing or cigarette.

In case of oozing, gauze-packed over oozing surface and surround the portion leading out of the cavity by rubber.

In conclusion I wish not to repeat Dr. Kelley's statement made in 1896, that "drainage is a confession of imperfect work on the part of the operator," but that the number of cases you drain will indicate your ability as an abdominal surgeon, and not to forget that the greatest disadvantage of drainage is that it does not drain the general peritoneal cavity.

DISCUSSION

DR. G. B. JACKSON (Indianapolis): Dr. Weinstein's paper deals with the question of drainage in such an exhaustive manner, both experimentally and clinically, that it does not permit of a great deal of discussion. All points known up to the present time have been considered by him. After all, the question of drainage is somewhat a matter of personal opinion and, as the doctor has pointed out, a matter of ability of the operator.

The more thorough the operator the less use will there be for drainage, and vice-versa. It is agreed that a drain produces an encystment of itself within a comparatively short while. It is, therefore, impossible to drain the general peritoneal cavity for very long. Drains, by the very fact of their becoming walled off, are effective when properly placed in producing a way for the discharge of material from the source of infection to the exterior. I believe, therefore, that drainage is indicated in abdominal work where there is local infection, as a prophylactic measure against general septic peritonitis. For example: The last year or so I have observed four cases of acute appendicitis, almost identical

as to the pathology on operation, which showed a gangrenous appendix with more or less leakage. Three of them were drained, the fourth was not; the latter succumbed within forty-eight hours of general septic peritonitis. I have always believed that this latter case would also have been saved had we used a drain.

So it is that I am convinced that when in doubt the surgeon should use a drain as a prophylactic measure against general peritonitis.

DR. A. M. HAYDEN (Evansville): The danger of using a gauze drain arises as a result of the possibility of its coming in contact with the intestines and causing a fecal fistula. I prefer glass tubing for my drainage, as a rule, although I have occasionally used cigarette drainage in abdominal wounds.

A number of years ago, when surgeons began to do away with drainage, Dr. Jos. Price said to me that he continued to drain as much as he ever did. The time is coming when they will all come back to it. When there is a possibility of an infection in the abdominal cavity it is never safe to close it up without a drainage. Many cases so treated do well, but occasionally one does badly, even though every effort has been made by the surgeon to eliminate the infection at the time of the operation. A drainage tube in such cases acts as a safety-valve and can do no harm.

DR. JOHN KOLMER (Indianapolis): A clean operator will not close the abdominal cavity without wiping out the contents thoroughly, but that does not mean tearing up of adhesions. I never think of closing the abdominal cavity without wiping out the area thoroughly with alcohol, and then if I feel uneasy I insert a tube and pack with moist gauze which has been in normal saline solution. The idea in using drainage is to prevent absorption, and I think that you can prevent absorption just as well by mopping out the cavity with alcohol.

DR. HARRY SHARP (West Baden): The remark was made that the patient becomes immune to his own infection and is an opinion to keep in mind, yet I can't get away from the fact that if I am in doubt I feel that I must drain, because it seems to me that we should give the patient that chance, for even if it does not do good it does very little harm. The idea of packing gauze into a wound seems to me is ridiculous, but if you will use rubber tubing, and particularly if you will separate that rubber tube, you will find that you can place small pieces of gauze through the tube, which you can remove very easily without damage to your drain. I see no reason for using a large number of tubes instead of one large tube. One thing we can do, we can remove a large tube and introduce a small one, but drainage by tubes is preferred to gauze always. I do not like to use cigarette drainage as in my experience edema and swelling are sure to follow.

DR. T. C. KENNEDY (Indianapolis): I have never drained a case for which I was sorry, and as long as my experience teaches me that drainage is of benefit I expect to use it. In a small percentage of cases it is absolutely necessary to drain, but I think I have drained less than 1 per cent. of cases.

DR. HANNAH GRAHAM (Indianapolis): I wish to commend the use of gauze drainage, but must insist that it be applied in the proper manner. We should not apply gauze so that it will stop up the cavity. When we apply gauze for drainage we must actually produce drainage. I recall one case of appendicitis in which the attending physician who worked with me commanded me to put in dry gauze. I did so and noted the effect of it. Although there was a large quantity of pus present, there was very little drainage and a rise in temperature. When I dressed the case myself the next day I put in gauze loosely, using possibly two weeks of moist gauze, and we had free drainage with temperature lower and pulse-rate lower. You can see in this case the trouble was caused by use of dry gauze.

DR. BERNAYS KENNEDY (Indianapolis): I do not know that there is always a definite rule concerning when to drain and when not to drain. One point I am taking into consideration more and more when about to close the abdomen, from which I have removed suppurative organs, and that is the question as to whether or not that patient has acquired an immunity against his own poison. If that is the case, I believe you need not have any fear of closing up the cavity.

DR. J. R. EASTMAN (Indianapolis): Dr. Weinstein's teaching is excellent. His position is the modern one taken by neat operators. The more one operates, the more skill one acquires, the less needless trauma one produces, the less one drains. However, if I were to be operated by Dr. Weinstein for appendicitis I should want him to drain me if there were the slightest suspicion of pus, and this, I presume, he would do. It is somewhat misleading, I believe, to say that it is impossible to drain the entire abdominal cavity. This is perfectly true, and yet, as Dr. Jackson has remarked, it is usually possible to drain the area concerned in the infection or operation. I do not like an ordinary cigarette drain for the reason that the gauze may plug the tube. A slender string of gauze in a large tube will do no harm, but the tube must not be packed. In any pus case the drainage tube should be large. There is no good in sending a boy on a man's errand. Years ago Dr. Deaver said, "Where a small cigarette drain serves the purpose there never was any purpose for the small cigarette drain to serve." Corrugated rubber should be taboo. The corrugations file holes in the intestine and make fistulae. The rubber should be smooth. Gauze drainage has been generally condemned here, and with some justice. However, moist gauze will

now and then help us to wall off the area to be drained, and help quickly to establish a drainage well to a localized infected focus. It certainly predisposes to fistula. Getting well with a fistula is a disagreeable process, but not anything like so disagreeable as dying.

DR. WEINSTEIN (Closing): I wish to thank the members for this most complete discussion of my paper and state that in the time allotted, I could only hit the high points. I was afraid my statement would be misunderstood, that in suppurative cases there was no question among any of us as to drainage. I hardly think that Dr. Eastman will be operated on in suppurative appendicitis without drainage. In pus tubes the patient usually has become thoroughly immune. If the upper cavity has been walled off and not invaded, there is no soiling of it, and no necessity for drainage. I thoroughly agree with Dr. Combs that chemical sterilization in the abdomen is impossible, and I feel that it is reprehensible practice to use alcohol here for such purposes.

As to the discussant who spoke about using moist gauze because it will drain a little longer than dry gauze, if the doctor had used tubes instead of gauze, she would have got plenty of drainage and would not have had to change drainage every day. But that is a question of personal opinion. The point I wanted to bring out is that when a man becomes sufficiently skilled along that line, his doubt when to drain or not will become less and less, and that he will know when and when not to drain.

I feel rather strongly as to the use of metal or glass tubes because we are bound to have more pressure against the intestines and are more liable to have fecal fistula than in the use of rubber tubing.

I hope that the gentlemen did not mistake the meaning of the paper. It was not to stop draining, but to stop draining all cases that are soiled by blood, or bullet wound of stomach or intestines, every case of perforated gastric or duodenal ulcer and cases of that nature. We will drain most every case of general septic peritonitis.

In conclusion, I wish to say that drainage is a question that can best be determined by the operator in each individual case.

SOME INDICATIONS FOR CRANIOTRYPESIS

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Trephining the skull is an operation of great antiquity, dating no doubt from prehistoric times. Like all operative surgery, it formerly was reserved for emergencies, being employed with reluctance and trepidation.

The advent of asepsis gave to all surgery a great impetus, and progress has been made here as it has elsewhere in the invasion of the human organism.

It is my belief, however, that intracranial surgery has not kept pace with operative procedures elsewhere.

In other cavities we boldly attack hemorrhage, cysts, tumors and infection. In the cerebral cavity we often wait until death or paresis comes to the patient, and we call this conservatism.

I fully appreciate the delicacy of technic required in this class of surgery. I also realize that failure comes in greater ratio here than elsewhere. I believe that many of our present failures might be converted into victories, and will be in the near future.

The brain and its coverings are subject to the same diseases that we find in other localities; and with modern methods of investigation we can in most instances arrive at a fairly accurate diagnosis.

If early diagnosis counts in any surgical procedure, it is here. The skull being non-elastic and the brain non-compressible, it follows that pressure is one of the important factors. Owing to the delicate nature of brain tissue pressure is not well tolerated. The highly specialized nerve tissue melts away, and unless pressure is quickly relieved the brain sustains permanent injury at the least.

Most intracranial operations are undertaken to relieve pressure, and I maintain that procrastination is not conservation in these cases. We must learn to make a diagnosis early, and having made it, operate without delay.

In this statement I do not wish to be understood as advocating indiscriminate craniotrypesis. Many of these operations should be undertaken only by specialists highly trained—such men as Horsley, Cushing and Krause, for instance. But the cases come to you and to me, and in greater numbers to the general practitioner, and my plea is that we should give them more attention, to the end that we recognize the importance of cerebral symptoms and the necessity for surgical relief.

Some of them may well be undertaken by the general surgeon. In no case, however, except in emergencies, would I advise that the skull be opened until every effort is made to arrive at a definite conclusion as to the location at least of the lesion. Among other things, skiagraphs should be taken, including anterior, posterior and lateral views. If possible, stereoscopic pictures should be obtained. In case of doubt, the Was-

sermann and tuberculin tests should be made, as well as complete blood and urine examinations.

The symptoms of organic brain lesions are relatively few, and they depend more on the situation of the lesion than on its nature. As I said before, one of the most important factors in this production is pressure, and this may result in either irritation or paralysis, depending somewhat on duration and degree. Of course, in silent areas there may be complete absence of symptoms until a lesion is well advanced.

In a broad sense we consider the symptoms as belonging to two classes, general and focal.

The general symptoms are headache, vomiting, vertigo, convulsions, stupor and choked disk. To these may be added, in certain cases, insomnia, emaciation, together with variation in pulse, temperature, respiration and urinary secretion.

These are merely general symptoms which indicate intracranial disease. They are not all present as a rule; headache often being the only symptom complained of. In every case of persistent headache, especially if confined to a definite area, search ought to be made for other general symptoms, the most reliable of which is choked disk, or so-called "optic neuritis." Also focal symptoms should be sought. When present, they usually enable us to determine the location of the lesion. In a general way they are confined to disturbances of motion, of common sensation, and of the faculties of special sense.

There are a few conditions in which I plead for earlier interference, and one of these is hemorrhage. Leaving out of consideration hemorrhages into the ventricles and into the brain substance—for here the indications for treatment are at least debatable—I will consider briefly those cases in relation to the dura. Blood may escape above or below the dura. If above, the symptoms may be slight, and often consist of nothing more than a headache. If severe, all the signs of intracranial pressure may be present, such as headache, vomiting, vertigo, slow pulse, slow respirations and even unconsciousness. Such attacks often pass for acute gastritis. These latter symptoms call for prompt relief by a large opening and evacuation. The former, if not markedly improved in a few days, may well be relieved by a similar operation.

If hemorrhage is subdural, it is distributed quickly over a large area, and blood even finds its way into the spinal canal, where it may be recognized by lumbar puncture. While this procedure is a valuable aid to diagnosis, it must be made with great caution, only a few cubic centimeters being withdrawn. Otherwise the increase of ten-

sion in the cranium may force the medulla down into the foramen magnum and result in death or serious collapse.

The symptoms of subdural hemorrhage are not different from those just described. The treatment is clearly indicated, viz., the removal of a large flap and the incision of the dura.

In the supradural variety one of the meningeal arteries may require ligation to control the bleeding.

In any event, where pressure symptoms exist, an operation is the most conservative procedure. It is calculated not only to relieve the immediate symptoms, but to forestall adhesions and the possibility also of infection. This is true conservation or prophylaxis.

Infections constitute another group of cases that are too often neglected. Especially is this true of cerebral abscess.

Cases have frequently come to our notice where cerebral abscesses have persisted for years, dating back to some injury which has been long forgotten. This is not an infrequent discovery at autopsy in our state institutions for the insane and feeble-minded. Such occurrences constitute a challenge to the scientific accuracy of medical practice, for they are not uncommon.

The most common sources of infection in the brain and its coverings are the accessory cavities—the middle-ear, the orbit and the sinuses adjacent to the nose. A careful history, a thorough examination of these cavities, together with a search for the usual symptoms of cerebral disease, will usually disclose its nature. A differential leukocyte count is useful. Treatment should consist of drainage. In all subdural and intracerebral abscesses it is best to open the skull, and wait for adhesions before completing the operation. Further than this I will not go into the question of technic.

Cysts and tumors constitute another class of cases which cause intracerebral pressure and call for surgical removal if possible; if not, then decompression for relief.

In this group I would place the gumma which resists the action of antiluetic remedies. The only way in which tumors find room for expansion in the cranium is either by forcing out some of the circulating fluids, or by destruction of brain tissue. Usually the former condition takes precedence. Thus the growth of gummata renders their site anemic or avascular, and the absorption of remedies directed against them is thwarted. By decompression the intracerebral tension is lowered, and often the operation, if followed by medication, results in much improvement.

In conclusion I wish to disclaim any idea of originality in my views. I know that other men have urged on us the necessity of more painstaking care and have advocated even more radical procedures. There is this reason for my paper, and I call it sufficient: Surgical diseases of the brain are overlooked daily—not alone by general practitioners, but by surgeons. Cases are passed on to the neurologist which are amenable to relief or cure by surgical means. I contend that we must take the operation of craniotrypsis out of the list of emergency measures and place it where it belongs, with celiotomy, in the list of operations which stand for prophylaxis—for the conservation of human life.

DISCUSSION

DR. J. R. EASTMAN (Indianapolis): At the risk of being accused of making a trite statement, I wish to say that this is a most timely paper. Dr. Young is entirely correct when he says that the possibilities of craniotrypsis are not appreciated. In the more gross injuries of the skull associated with indications of intracranial mischief, for example, depressed fracture, trephining is no doubt done promptly by everyone engaged in this department of surgery. However, it has remained for very modern surgeons, like Cushing, to contend that craniotrypsis has its place in birth palsies and in cortical apoplexy. All of us need to be reminded occasionally that serious brain injury may be entirely unassociated with any external evidences. The elasticity of the skull allows of serious contusion of the cortex with no associated bone lesion. The internal table is fractured while the outer table remains intact. These things deceive. The so-called "lucid interval" in hemorrhage deceives. And in cases of doubt it is much better to err on the side of safety and operate. Dr. Abby of New York has recently remarked that not infrequently epilepsy is cured by decompression for no apparent reason, no brain lesion of any kind having been found at the time of operation. It should be remembered that any injury of the head that is sufficient in severity to produce unconsciousness is a serious affair, for notwithstanding the patient may appear to recover completely and promptly, evidences of any intracranial mischief may appear at any later time. It was the belief of the late Dr. Fenger that brain concussion (perhaps more properly designated as brain contusion) very frequently results many years later in epilepsy. There is usually in such a case no external evidence of injury, but a slight cortical hemorrhage leads to cyst formation which, with its surrounding wall of connective tissue, gives rise to an increasing cortical irritation. Such cases should be operated on early. Dr. J. B. Murphy lays much stress on brain concussion

or contusion as a cause of epilepsy or insanity, saying that "rather than be rendered unconscious by a blow on the head I would prefer to die, so much fear have I of the secondary lesions that occur in connection with these injuries." After brain injury, if the patient recovers, certain stigmata, such as blindness or paralysis, may remain, such stigmata being due to ineffective healing of the damaged brain. There is probably always attempt at reconstructive change. Blood and brain tissue are often absorbed so that at the site of contusion a defect results which is filled in with scar tissue or by a serum accumulation, often mis-called a "cyst." Certain it is that traumatic defects are not restored by a regeneration of brain tissue. Craniotrypesis is the only possible manner of correction of such lesions. Craniotrypesis is being resorted to with increasing frequency in fractures of the vault and base in the justifiable hope of relieving the immediate results of compression and forestalling more remote effects, like yellow softening.

DR. PAUL F. MARTIN (Indianapolis): Surgical intervention is at present the only remedy for certain intracranial affections. Unfortunately, however, there are many obstacles, as the essayist has already pointed out, for a successful operation. Prominent among these obstacles is the great difficulty of making an early precise diagnosis, and even a greater difficulty, that of overcoming the so-called procrastination, as the essayist has put it, which seems to prevail among general practitioners, in adopting the remedy, when urgently indicated. The intracranial hemorrhages occurring in the new-born, furnish us, perhaps, the most common example of this predicament in general practice. There is nothing new about this condition, though only few cases are reported. It is most important that the obstetrician should recognize this condition promptly, that he should seek collaboration with a surgeon, and institute relief at the earliest possible moment. If not primarily fatal within a few hours, a large percentage of the unfortunate surviving victims are sufferers of spastic paraplegia, Jacksonian epilepsy, or some form of cortical irritation later in life. There are, of course, also cases of hemorrhage unrecognized, giving no definite, nor even problematical symptoms, which is far more frequent than in the adult, because of the elasticity of the skull in the new-born, and these may absorb and cause no detrimental effects at all.

Dr. Young complains that this procrastination in promptly adopting the remedy is not conservation of human life. I suggest that he puts it too mildly. We have met before with this same attitude of general apathy among practitioners in accepting the only proper course of treatment for their cases of appendicitis when once diagnosed. We are still fighting the battle to overcome a certain passive skepticism, and save by

early and prompt laparotomy, a sure percentage of our typhoid perforations, otherwise most all doomed. The ideal treatment of perforative peritonitis is its prevention. In other words, we should anticipate the consecutive peritonitis. Somebody, I believe Murphy it was, said that perforative appendicitis furnishes the bulk of all cases of perforative peritonitis, and except in about 1 per cent. of primary perforative cases, there is no excuse for this peritonitis, and that it indicates neglect on the part of the attending physician. He (Murphy) expresses himself positively, and without reserve, on this attitude of leaving things to providence.

Most conspicuous of the more recent operations for intracranial affections, are perhaps those of the decompression operations for trauma, for tumor, and those for epilepsy. These are now established on a sound basis, having passed through the stage of experimentation and through the successive developmental stages, to the one in which sufficient time has elapsed to show the real results from this treatment, to modify opinion more judiciously, and to confine indications for operative interference to a selected number of cases.

In reference to fractures of the vault, it is the general belief that all depressed fractures should be elevated. In basal fractures, there is still some divergence of opinion as to operative indications. From personal experience, I have come to the conclusion that in the presence of severe brain contusion, without distinct focal manifestations, commonly accepted as urgent operative indications, the let alone policy should be adopted. The attempt to relieve by decompression an intracranial pressure due to contusion of the brain, will do no good, but harm, because brain laceration and diffuse hemorrhages, involve the brain structure as a whole in a rapidly progressive edema, and in fatal cases death is not due indirectly to intracranial pressure, but directly the result of involvement of the vital structures themselves from the trauma, laceration or hemorrhage. You see how futile an opening for the relief of the condition would be. In tumor in which only a limited area is involved, and which is not a diffuse progressive process, the vital centers are affected only indirectly, and our most happy results are obtained from decompression. Also in papilledema from various causes, choked disk is relieved, and blindness may be averted. Even in nephritic uremia the decompressive operation has been done with marked amelioration of symptoms. In compression from edema after traumatism, or serous meningitis, in which there is an excess of fluid under increased tension in the cerebrospinal spaces, lumbar puncture often relieves the compression symptoms, and should be tried before resorting to decompression. This also holds good in uremic compression symptoms and in eclampsia.

DR. SIMON J. YOUNG (closing): While I appreciate the able manner in which these two of my profession, who were appointed to discuss this paper, handled the matter I should have liked to have heard from a larger number. I should have liked to have heard the report of a case or anything relating to conditions which call for cranio-trypsis. The one idea in the paper which I desired to emphasize was the necessity for bringing this question more prominently before the general profession in order that some of these cases may be saved. Take the question of apoplexy. A number of operations have been done for the relief of intracranial hemorrhage and some of them successfully. We have come to the point where we must be able to do cranial surgery as well as surgery of the abdomen.

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VACCINE THERAPY IN CATARRHAL CONDITIONS *

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This is an age of progress. The study of immunity is but a few years old. It is still in the kindergarten stage. A century hence what a pleasure it will be to practice medicine. Probably, in that golden future, the injections of simple proteid chemicals will loosen with ease the grip of disease. The world will then know better whether more stress is to be put on Ehrlich's chemical humoral theory with its antigens, receptors, amboceptors and complements, or Metchnikoff's plan of the carnage and warfare of the phagocytes with the bacteria. They, as well as Wright's theories, have been a great blessing to the human race.

The serums seem to have the greatest usefulness in those infections in which the harm is caused by exotoxins, such as diphtheria and tetanus, and not by endotoxins. Practically all the pus-forming bacteria such as found in the mucous membranes of the eye, ear, nose and throat, and the sinuses, form endotoxins. The greatest scourge of them all, is, probably, some form of the *Streptococcus pyogenes* or similar cocci, which have many varieties not yet properly classified.

The streptococcus is the initiator of very many diseases, as well as being present in a large number of secondary and mixed infections. The germs cause more pathologic hearts and kidneys than all other bacteria. The streptococcus that

enters through the tonsils has killed more human beings than those which enter through the appendix. Luff, who, in his third edition, has written the best modern work on gout, says: "It has been customary to regard the *Bacillus coli* group as the most characteristic intestinal bacteria; but Huston has shown that streptococci surpass the colon bacilli in abundance in normal human feces; they were at times present to the number of 1,000,000,000 per gram. Streptococci are thus present in the intestine of man, and of such animals as have been examined, in vast numbers, exceeding in most cases all other bacteria. Andrews has brought forward evidence to show that the streptococci are well established saprophytes of the alimentary canal; and, to all intent and purpose, they are, at the present date, exclusively attached to the animal body and particularly to the alimentary canal. Here, and here alone, they flourish and prevail in incredible numbers. Andrews and Horder have recently published the details of the examination of more than two hundred strains of streptococci from cases of human diseases.

"In my opinion, the view that a bacterial toxin is the primary cause of gout is the most probable one."

It is probably true that in many patients the immunity machinery is absolutely worn out fighting the streptococci, a clear indication for beginning with small doses of streptococci vaccine.

The pneumococcus looks very much like the streptococcus under the microscope; and in some way we feel that they act like first cousins in their satanic cussedness. In catarrhal conditions of the respiratory tracts we have also that large group called the micrococcus catarrhalis, the bacillus septus (diphtheroid shaped) and the many staphylococci.

I have used over five hundred injections of vaccines prepared against those catarrhal invaders. The experimental department of Parke, Davis & Company has assisted me very much by placing at my disposal unlimited opportunity for the study. Months ago they prepared, at my suggestion, the following strains of catarrhal vaccines:

- Pneumococcus, 2 strains.
- Micrococcus Catarrhalis, 2 strains.
- Streptococcus Pyogenes.
- Bacillus Septus (Diphtheroid Bacillus).
- Staphylococcus Albus.

There are 400,000,000 dead bacteria divided into seven strains which would make 56,000,000 for each strain.

I have used these in all ages and in doses varying from 1/16 up to the full dose in a large

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number. The English workers at St. Mary's Hospital advise small doses of 5 to 20 millions of the streptococcus. For this reason I believe, in the beginning, in using broken doses in commencing the treatment of a chronic case. There have been no bad results from the so-called negative phase.

It is unfortunate that the use of tuberculin, which has such depressing effects if the dose is in the least too large, should shadow the catarrhal and pus-bacterial vaccines. My results would prove they are not to be compared as far as any undesirable negative reaction is concerned. Peters, in a late article in *The Journal A. M. A.*, states he has seen reactions with a dose as low as 1/1,000,000 of a milligram of bacillen emulsion. This is surely Hahnemann's theories with a vengeance, when we consider a milligram is only 1/64 of a grain, and the bacillen emulsion contains less than 1 per cent. of solid substance. This dose would equal only 1/6,400,000,000 of a grain of solid substance.

Right here it would be well to say that, as tuberculin is such a powerful proteid poison, I believe, it would be well in many cases to commence its use by taking it first by mouth. I have found that it can be carried to a dose that may be 1,000 times as strong as it would be safe to use subcutaneously. I have the patient brush his teeth every morning and the dose of tuberculin is largely absorbed in the mouth. From there it probably passes directly into the lymphatic system. A case of a professor who had tubercular laryngitis was apparently cured by this method. Also two brothers with tubercular suppurative otitis media were cured by this easy plan. Excellent results have also been obtained in tubercular chorioiditis.

With the use of the catarrhal vaccine mentioned, at least 70 per cent. of the patients had remarkable relief which could not have been obtained under other treatment. Acute coryza, chronic rhinitis with sinus involvements and extension to the trachea and bronchial tubes, tonsillitis and mastoid inflammations were often favorably controlled. There were no signs of hypersensitiveness created as vaccines are free from the disturbances caused by serum anaphylaxis. It is especially useful in nasal infection with asthmatic complication. I have had several cases entirely relieved.

Vaccines will not cure all cases. I have had help in some cases from the conjoint use of the streptococcus serum and this special catarrhal vaccine. In one case in which I had done a radical mastoid operation there was apparently a beginning complication of lateral sinus throm-

bosis with temperature ranging over 5 degrees. The injection of the serum into the skin of the abdomen and the vaccine into the arm led to an almost immediate cessation of fever and the speedy cure of the patient.

A case of quinsy in a very influential physician whose jaws were locked for several days so that he was in a state of semistarvation, was treated in the same manner with almost immediate relief.

A number of ulcers of the cornea have been aided to recovery by the use of this vaccine. While vaccines are not a cure-all they are a mighty safe piece of fire-fighting apparatus to have around. If the patient is not affected with the particular germ injected, it seems to cause no harm; and it may build up future resistance, if it should happen to be present as a secondary invader.

Under modern civilization with its constant traveling on traction lines, and the constant handshaking, and the continued use of the vile pocket handkerchief, it is no wonder that catarrhal diseases are so prevalent; especially when the windows are closed at this season of the year.

Vaccines, of course, will not remove a deflected septum, a nasal exostosis, an enlarged bony turbinate, diseased tonsils, adenoids or many other pathologic conditions which require other form of treatment.

Some of our sedentary, overfed patients who look as if they had swallowed a watermelon and it had permanently lodged slightly below the waist-line, may not have all the wheezing, sneezing, snuffing, hemming, hawking, coughing and barking removed at once by a few injections of a vaccine; but it will go a long way to start recovery if assisted by hygienic living.

Many of these patients are over-clothed. They are pitiful, shrinking cowards, afraid of the least draft, and they ought to be pitied to the extreme. The vaccines in such cases act as a prophylactic and do much to restore their courage. They may come to agree with the savage who said that the Indian's body was like his face in that it was not afraid of a draft. The truth is that the dilated capillaries of the exposed part always make that portion of the skin feel warm. In such chronic cases, injection in the arm once a week, with all the other antiseptic and hygienic treatment which the rhinologist can provide, will go a long way to prevent or cure such needless suffering.

The opsonins may be compared to Ehrlich's secondary order of receptors and are similar in their nature to the precipitins and to the agglutinins. The opsonins so act on the bacteria that

they are easily destroyed by the leukocytes and possibly other antibodies.

In the home of opsonic study at St. Mary's Hospital, London, there are many more stock vaccines used than the autogenous; the latter being used when a cure cannot be obtained with the stock variety.

We must remember that practically all tubercular and gonorrheal immunization is carried on with the stock variety the world over. In treating catarrhal and suppurative conditions the stock variety may be found equally useful. Experience shows that the staphylococci and the pneumococci infections are the most amenable to this form of treatment in the order mentioned. Moreover, prophylaxis will often be found just as useful as a cure. Indeed, "prevention is always better than a cure."

UNILATERAL MYDRIASIS *

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The incentive for this paper has been derived largely through experience with the three following patients:

CASE 1.—A. O. D., age 27 years, unmarried, consulted me Feb. 6, 1892, because of dazzling vision and enlargement of the left pupil. He admits to specific infection, otherwise has had no serious illness. The left pupil is semidilated and non-responsive to direct light and consensual stimulation. To convergence and accommodation it contracts slowly. The right pupil responds both to direct light and associated stimulation. There is no disease of the fundus and vision in either eye is 15/15 for the distance, and Snellen 0.50 for the near. February 26 he saw with the left eye 15/30, improved by plus 0.50 spherical lens to 15/15 for the distance, while near the eye read Snellen 2.25, improved to Snellen 0.50 with the use of plus 2.50 spherical. State of the pupil unchanged from that at the first examination. Instillation of a solution of pilocarpine induced miosis in the left eye.

Treatment.—Iodid of potash and bichlorid of mercury. After several months of such medication, and there being no change in the condition of the left eye, patient was lost to observation.

CASE 2.—B. C., age 39 years, unmarried, consulted me Feb. 17, 1899, with the statement that following an attack of influenza two years previous the right pupil became larger than the left, and for part of the time during the past twelve months he has seen double. He admits to the regular use of tobacco and to the moderate use

of whisky, but absolutely denies syphilitic infection. The patient is a gentleman well known to me and whose veracity I do not question.

Examination.—The right pupil moderately dilated and insensible to light reflex. To convergence and accommodation there is a sluggish response. There is no intra-ocular disease. Vision for the distance in both eyes 15/20 and not improved by lenses. Near vision in the left eye Snellen 0.50 in the right eye, Snellen 2.25, increased by the help of plus 3.00 spherical lens to Snellen 0.50. The left pupil reacts normally to direct and consensual stimulation as well as to convergence and accommodation. Instillation of eserine solution induced contraction of the right pupil.

Treatment.—Iodid of potash and biniodid of mercury. At my last examination April 27, 1912, thirteen years since the first consultation, the condition of the right pupil is still that of iridoplegia absolute.

CASE 3.—O. E., age 53 years, married, consulted me Sept. 5, 1910, because the left pupil was dilated and the eye annoyed him by a dazzling sensation. He admits to lues infection twenty-five years ago, otherwise has had no serious illness. Vision O. D. 15/15 and Snellen 1.50. Vision O. S. 15/15 and Snellen 1.75. With the help of plus 2.25 spherical he read Snellen 0.50 either eye. Both pupils react to convergence and accommodation, and the right one to direct and consensual light reflex. The left pupil, on the contrary, remains immovable to light stimulation.

Treatment.—Iodids internally and a collyrium of eserine which quickly induced contraction of the left pupil. On being given the Wassermann test there was a positive reaction, following which the treatment was changed to hypodermic injections of mercury. After a course of such medication Wassermann became negative. March, 1912, patient visited Hot Springs, Ark., without benefit or change in any way in the dilated left pupil.

Unilateral mydriasis may result through paralysis of the oculomotor nerve fibers which innervate the sphincter muscle of the pupil, and again through irritation of the sympathetic ciliospinal center or the sympathetic nerve as it pursues its way through the neck to the eye. We distinguish the one from the other by the fact that in spasmodic mydriasis the pupil retains its responsiveness to the light reflex while the response to psychical and sensitive stimulation is lacking. Again, in spasmodic dilatation other vasomotor disturbances are found in the corresponding half of the face and head, such as pallor and narrowing of the blood-vessels, unilateral disturbance of the function of the lachrymal and sweat

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glands, and variation in the surface temperature from that of the healthy side.

In paralytic mydriasis you find a moderately dilated pupil, insensible to light, but responsive to psychical and sensitive reflex. The reaction of the pupil to light being an involuntary act and uninfluenced by the will, unilateral paralysis of its muscle is a symptom strongly indicative of organic disease in some part of the nervous system. As a preliminary to the question of localization of the lesion, whether the site is one in the pupil governing nucleus or the result of the stimulus not being conducted from the retina to that nucleus, I will briefly review the normal pupillary mechanism in health. The pupil, you all know, is an opening in the iris and strictly speaking is capable of but two changes, contraction and dilatation, both reflex acts. The reflex concerned in contraction follows on light stimulation of the optic nerve endings, or as an associated act with convergence and accommodation. Dilatation follows on exposure of the eye to lessened illumination, or as a sympathetic reflex through ciliospinal nerve stimulation by psychical agency or after irritation of a cutaneous sensitive nerve ending in the neck. The retina is an outlying part of the brain, with the optic nerve as an association of fibers running between it and the intracranial brain. On close study the optic nerve fibers may be resolved anatomically into two kinds of fibers, those which are axis cylinder processes of ganglion cells of the retina with centripetal conduction to and beyond the three primary optical ganglia at the base of the brain and axis cylinder processes originating in the ganglion cells of the anterior corpora quadrigemina and ending in the internal granular layer of the retina with centrifugal conduction. The path of the optic nerve is such that its fibers undergo at the chiasm, within the cranial cavity, partial decussation. Physiologically, some of its fibers are concerned in the transmission of visual sensations, others in the transmission of light stimulation. In addition to the foregoing, there are interconnecting fibers between various intracranial centers or between these centers and the extra- and intra-ocular muscles concerned in the execution of the special sense of sight in its highest degree of perfection.

The nervous circle of pupillary light reflex is as follows: Light stimulation of the retinal cones; transmission to the retinal ganglion cell layer; thence conduction through the optic nerve chiasm and tractus to the primary optical centers at the base of the brain in both lobes; thence to the bilateral nuclei of the sphincter iris muscle which in turn govern the involuntary movements

of the pupil. Consensual pupillary movement is the result of centripetal optic nerve fiber semi-decussation.

Unilateral pupillary disorder, the result of interruption of optic nerve centripetal conduction is always in association with disturbance of vision. Isolated iridoplegia due to interruption in centrifugal conduction is unilateral unless the lesion is a bilateral one. While it is generally accepted that the motor oculi nerve arises from a nucleus beneath the aqueduct of Sylvius and is the source of motor supply for the intra- and extra-ocular muscles, investigators are not in accord as to the arrangement of the ganglion cells which go to make up the nucleus, nor as to how the connecting fibers begin and end, nor the path traversed by the fascicular fibers which originate from the ganglion cells.

We believe, in common with the majority of neurologists, that the small-celled Edinger Westphal anterior medially situated group presides over the sphincter muscle of the iris, and that unilateral reflex iridoplegia cannot be due to a lesion in the central reflex arc for the iris, because such lesion must produce a like involvement of both eyes. On the contrary, the lesion must be one of the sphincter nucleus or of its centrifugal fascicular roots. The lesion in Case 3, which is a typical one of essential unilateral reflex iridoplegia, is at this point in the nervous circle of pupillary light reflex because the ciliary muscle was not involved while the pupil responded to convergence and accommodation. Again, the right eye was not affected in any way. A coarser lesion, one extending laterally so as to include the nucleus presiding over convergence and accommodation, or at least the centrifugal roots arising therefrom, must be assumed in Cases 1 and 2, since in addition to the mydriasis there was loss of power in the ciliary muscle, a condition properly termed iridoplegia absolute.

The solution of reflex pupillary rigidity, Argyll Robertson phenomenon, is not so clear, because at times instead of typical bilateral contraction of the pupils with retention of further contraction to accommodation and convergence, it happens that the state of reflex rigidity is one of bilateral dilatation or this very exceptional one of unilateral mydriasis. A lesion in Meynert's centripetal fibers connecting the anterior corpora quadrigemina and the motoroculi nucleus is explanatory for the bilateral contracted pupillary rigidity, but not at all for the dilated one. To explain the latter, a nuclear lesion must be assumed, one that involves destruction of the nerve fibers which break up into a terminal network around the ganglion cells, and because of

this the cells remain in a constant but unequal state of irritation on the two sides of the brain with resulting anisocoria, or else agree with Haddeus, *Archives Ophthalmology*, Vol. xxiii, that the nerve supplying the sphincter muscle of the iris arises by two roots, one from the sphincter center proper and the other from the closely adjoining converging center.

Etiology.—Irritative mydriasis occurs in hyperemia of the upper part of the spinal cord: spinal meningitis, syringomyelia, disease of the ciliospinal center; as a distant symptom following on increased pressure of the spinal fluid; in disease or injuries involving the sympathetic in its course from the cervical cord to the eye, such as goiter, enlarged cervical glands, aneurism, tubercular disease at the apex of the lung, and again in functional disorders as hysteria, neurasthenia, melancholia, psychical excitement, acute mania, alimentary canal and dental disturbance. It is also seen bilaterally in chlorosis, uremia, diabetes and hemicrania.

Paralytic mydriasis is found after syphilis, intracranial hemorrhage, tumor, abscess, alcoholism, multiple sclerosis, locomotor ataxia, progressive palsy and disease of the blood-vessels at the base of the brain; also in intra-orbital and intra-ocular disease, such as glaucoma, where there occurs pressure on the ciliary nerves; and, lastly, after external traumatism involving the ocular region, and after the use of atropine and similar-acting drugs. In acute infectious diseases, like influenza, diphtheria, ptomaine poisoning and poisoning from carbon monoxid gas, it may occur bilaterally.

Diagnosis.—Fascicular palsy is the result of disease involving the fibers between their point of departure from the nucleus and their emergence at the base of the brain. It is usually accompanied by paralysis of the extremities in the opposite side of the body. Basal palsy is likewise associated with crossed paralysis, and often in addition with visual and olfactory disturbance through pressure on the nerves of special sense, or may be facial neuralgia because the trigeminus is injured. In pupillary palsy, due to orbital disease, the symptoms are unilateral with palsy of a group of extra-ocular muscles and not a single muscle. In addition, you look for displacement of the eye, localized orbital pain and tenderness, and in case the ciliary ganglion is the seat of lesion, anesthesia of the cornea. In recent unilateral dilatation of the pupil without history of traumatism or local eye disease, suspect the use of a mydriatic.

Unequal pupils may be seen where there exists a high degree of anisometropia, and again when one eye is blind. Varying inequality of the pupils, or alternating one-sided mydriasis, is often a premonitory sign of insanity. This condition, however, should not be confused with hippus, which means a contraction succeeded by a slight dilatation and again contraction with repetition a number of times when the pupil assumes its original size and becomes quiet. The phenomena of hippus is met with in grave hysteria, maniacal excitement and some organic nervous diseases. Where inequality of the pupils is slight and neither shows any great variations from the usual pupillary width, a distinction can generally be made by testing the pupillary response to direct light reflex, the one showing the less marked reaction being the diseased one. Mydriasis due to glaucoma or chorioiditis is recognized by the increased eye tension, shallow anterior chamber, optic nerve excavation and changed field of vision in the one, and the loss of sight, increased depth of the anterior chamber and vitreous opacities in the other.

Traumatic unilateral mydriasis, of which the following is an example, is recognized through the history of the patient B. K., age 25 years, and residing in Eldorado, Ill., was referred to me March 28, 1912, by Dr. W. T. Johnson with the statement that eight days ago he was struck over the inner side of the left orbit by a large cinder, since which there has been disturbed vision and a black eye. I found the left pupil wider than the right and without response to direct light reflex. There was sluggish response to convergence and accommodation. There was no disease of the fundus. Vision in the eye 15/50, while near he read Snellen 1.50. With $-0.50 \text{ C} - 0.25 \text{ ey. ax. 180}$, distant vision 15/30 and near vision Snellen 0.50, with the help of plus 0.50 spherical. The right pupil reacted normally, and the right eye had vision 15/15 and read finest Snellen. Eserine instillation induced contraction of the left pupil. The lesion in such cases is usually one of small tears in the iris muscle, accompanied maybe, as in this patient, by slight involvement of the ciliary muscle.

A thing not to be forgotten is that in some of these traumatic cases the mydriasis may persist for some time and at a remote period might be mistaken for an intracranial lesion. An isolated ophthalmoplegia continuing localized for a long time is not only almost always of nuclear origin, but likewise a manifestation of past syphilitic infection in the large majority of cases.

Pathology.—A primary affection of the gray substance of oculomotor nucleus lies at the bottom of most cases of ophthalmoplegia. In the acute form, seen after the acute infectious diseases, alcoholism, carbon monoxid gas and ptomaine poisoning, it partakes of the character of acute polienccephalitis superior. In the chronic form, seen in locomotor ataxia, progressive palsy and multiple sclerosis, it partakes of the character of chronic polienccephalitis with primary atrophy of the fascicular fibers. The palsy may disappear in a short time and recur in disseminated sclerosis and tabetic disease, but in many instances it remains permanently.

Treatment.—This must be instituted with due regard as to the underlying cause of the lesion. The iodids and mercury are often prescribed, and salvarsan may be given, but, notwithstanding a positive history of syphilis and protracted medication, these cases are often rebellious, and the mydriasis may continue a permanent one.

HERNIA IN INFANCY AND CHILDHOOD *

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The question of hernia is one of intense interest, because it is capable of cure, and if left untreated the patient not only remains handicapped for life but has a condition which not only tends to grow worse as time passes but which is a constant menace to the life of the possessor as long as it exists. Hernia in infancy is of special interest, not alone because of the fact that a large percentage of all herniae are found in early childhood. Coley states that one-third of all cases are found in children between the ages of 1 to 14 years of age, and in addition to this surgeons are becoming more and more convinced that a large percentage of hernia of adult life is due to a preformed sac which has existed since birth. Coley states in his statistics that out of 15,000 cases operated in adult life that 5,000 gave a history of having been treated by truss in early childhood.

R. Hamilton Russell, Melbourne, Australia, gives the following classification:

1. Congenital, dependent on total patency of the processus vaginalis.
2. Funicular, where there is only partial patency of the processus vaginalis.
3. Acquired, due to some fault in abdominal wall.

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He combines 1 and 2 as total and partial funicular, and puts both in the congenital class. He further states that from his study and observations that no one can distinguish the partial funicular from the acquired hernia, even on operating, and that in his judgment, with very rare exceptions, the herniae of childhood belong to the congenital class, one argument being that if acquired herniae were the rule that femoral herniae would outnumber inguinal, as the femoral canal is a weaker spot in the anatomy of the human species than is the inguinal. Of the correctness of his conclusions there well may be some question, as the inguinal canal, if such it may be called, is not a canal at all at birth, for the internal ring is directly posterior to the external.

He further draws attention to the fact that quite a number of the herniae in the adult give unmistakable evidence of being congenital in origin, which I think is more to the point than the comparative strength of the inguinal and femoral canals.

Coley is not quite so radical, but gives a similar classification to the above and states that nearly all herniae in infancy and childhood belong either to the complete or partial funicular type and are therefore congenital. In these conclusions as to the origin of herniae in childhood Coley and Russell have a large following.

If it is a question to be settled by the majority, we might safely say, from published reports and opinions, that nearly all herniae found in the first five years of childhood are congenital in origin though the hernia itself may not show till a later date.

Edred M. Corner, London, England, is one of the most radical supporters of the theory that nearly every hernia except those present at birth belong to the acquired variety, and while he recognizes the part that coughs, straining from various causes, etc., play in the causation of herniae, yet holds that gastro-intestinal fermentation is by far the greatest factor in their production, by increasing the intra-abdominal pressure, and by the prolonged tension on the abdominal walls lessening their tone and finding any weak spots therein, and increasing their size and lessening their resistance.

In support of this theory he points to the gradual increase in herniae, especially ventral, up to the end of the second year of life, or during the period when gastro-intestinal fermentation is most likely to be active. From his observations he concludes that the true relation of acquired to congenital herniae in childhood is

about two to one, which includes all forms of hernia.

Between the extremes as to causation we have all shades of opinions. Probably neither extreme is correct, and we might ask, of what importance is the causation as long as you have the condition to treat? Treatment may easily depend to a great extent on the original cause, and certainly the success of treatment does. We have an altogether easier problem to solve if hernia be due to a slight congenital defect or a traumatism than if it be due to some gastro-intestinal disorder that is likely to continue for an indefinite period. The advisability of operative interference, and the chances of success following operation, certainly vary with the pathological conditions present.

The time is not long past since surgeons offered the truss as one form of treatment to adults suffering from hernia. To-day the adult who wears a truss for hernia wears it from choice, or at most because his surgeon knows that for some reason he is not a fit subject for operative procedure. To the healthy man the danger of operation is less than the risk of his hernia, while the operation brings almost certain assurance of permanent cure.

While the authorities I have consulted differ radically as to the pathology of a large number of the hernia, yet in general they agree as to treatment.

Corner claims that acquired herniae can be and are often cured by the properly fitting truss in the growing child. The congenital probably never. His theory of cure is that the truss retains the hernia and nothing more, and the sac is retracted into the abdomen by the general growth, and the opening is then allowed to close and a cure effected. He says the complete congenital sac cannot be retracted in that manner. The old theory that the hernia is cured by the truss pad causing an irritation which causes the surfaces of the sac to adhere and thus obliterates it is rejected by nearly all surgeons to-day. It is pointed out that the pressure that would bring about such a condition would certainly be painful and work havoc with the cord, and cause partial or complete atrophy of the testicle. Personally, I can hardly imagine the little patient enduring sufficient pressure through the amount of fat and other tissues you find in the average child, to bring about an ablation of the sac by pressure. If it ever takes place it must be so seldom as to be unworthy of consideration in discussing the cure of hernia.

There are present at least two reasons for the seeming success in truss treatment in children.

First, the smallness of the opening and the tendency for it to contract if the hernia be retained. Second, in inguinal hernia the growth of the child, and by that growth the changing of the relation of the internal and external rings and with that the forming or lengthening of the inguinal canal. These changes will in many cases effect a temporary cure, and in some possibly a permanent cure. That is, the hernia will be retained until the severe strain comes, and if that never comes the hernia will be retained for all time.

The question of operative procedure must be decided on the ability of the infant to stand operative procedure in this line, and the results obtained.

It is generally noted by surgeons that the infant stands operative procedure well, and hernia has proven no exception to the rule. Even in the strangulated form, where resections of the gut have been done, the mortality has been at least as low as the corresponding operation in the adult.

The question of asepsis has made many surgeons hesitate in early operations in this line. Reports show that under proper precautions no more cases are infected than in the adult. The effect on the testicle and cord is worthy of consideration. Cases where atrophy of the testicle has followed operation are exceedingly rare. Recurrences are less frequent than in the adult. Of course one has to bear in mind in reporting recurrences that in most cases operated in infancy the work in this line is most too new to be able to give authentic reports in any great number; as the infant passes several years before the real test is given, in fact not until he enters the rough and tumble sports of boyhood and is subject to the strains and accidents of an active boy. But if we meet the conditions necessary to successful cure, complete repair and closure of the opening and secure primary union, we can safely argue that our work should be a success. Especially when we take account of the fact that the growth of the child makes cure far more probable.

Most surgeons will subscribe to the following rules laid down by Coley that all cases should be operated, regardless of age when:

1. Hernia is strangulated even if the hernia is reduced.
2. Where the hernia is irreducible or reduced with difficulty.
3. Where the hernia cannot be controlled by truss, and is consequently increasing in size.
4. In all cases of femoral hernia which are never cured by truss.

5. In all cases associated with reducible hydrocele with fluid in the hernia sac.

6. In cases of undescended testicle.

The time of election for operation is important. Some say the earlier the better. Those who advocate very early operation urge that the child stands the operation better between the fourth and eighth month, because the primary dentition has not begun and the presence of gastro-intestinal disturbance is not so frequent.

One serious objection to early operation is where it requires the weaning of the babe, which need never be the case in private practice, but may be necessary in charity cases where the mother cannot be admitted to the hospital with the child. Where such is the case the work should not be done before the eighth month, and the child should be well accustomed to artificial feeding before the operation.

It seems to me that operation as early as practical should be urged for the following reasons:

First, as before mentioned, that the work may be done when the least injury possible exists, and before the anatomical changes incident to growth have taken place, thus getting Nature to help the most possible in the cure.

Second, before the child enters into active life, especially before he begins to take part in the active, rough and tumble sports of boyhood, preferably before the child begins to walk, unless contraindicated by other conditions.

Third, economic. The sooner the hernia is cured the less expense to the parent for other treatment, also the less loss of time to the parent in caring for the child. The child who is permanently cured at 1 to 5 years of age has just that many more years of comfort and safety for the same outlay, than the one who is cured from 10 to 15 years of age. But of more importance along this line is the one who slips into adult life, and becomes a wage-earner who has to face a life of greater or less hardship because he is incapacitated, in part at least, for his duties, and because if he undergoes an operation he must not only face the expense of an operation but also of loss of wages while in hospital. This class of cases often return to work before really able to do so, and thus rob themselves in many instances of the full benefits of operation.

I wish to briefly report seven cases, one umbilical and six inguinal.

The ages varied from 4 hours to 6 years.

About three years ago I was called by Dr. O. C. Lukenbill to see a child delivered four hours previous, which had a hernia of the small intestines into the umbilical cord, about the size of an orange. The doctor had tried but failed to

reduce the mass. The walls of the sac were very thin, and one could easily see the coils of intestines through them. I found reduction impossible, and was able to determine our failure was due to the presence of adhesions. After using antiseptic precautions we opened the sac and attempted to loosen the adhesions. The child at once began to strain and we found reduction impossible without an anesthetic. Dr. Lukenbill gave the child chloroform, and we loosened the adhesions and reduced the hernia without further trouble, ligating the cord close to the abdominal wall and putting a small pad over it for support. The child seemed none the worse for its early surgical experience, and all signs of hernia were gone in a few months. My only reason for reporting this case is to show how well the infant stood the anesthetic and manipulation of the intestines. The further surgical procedure of closing the opening with a purse-string suture I think would have been better, but I had no suture material at hand.

The other cases varied in age from 3 months to 6 years. All were right inguinal except one and it was double inguinal.

Two were strangulated, one 8 months and 10 days old, was of premature birth, had had whooping-cough and pneumonia, just recovering from the latter. The hernia had given a good deal of trouble by being hard to reduce. Attempts had been made to reduce it but failed, but on the way to the hospital, due doubtless to the jolting in the ambulance and the relaxation caused by paregoric, reduction took place. The parents were notified of the condition, but requested us to go on with the operation, although they were told of the probable risk. The child seemed to suffer no bad effects from either operation or anesthetic, and the wound was completely healed by the end of the week.

In two cases the cecum and appendix were found in the hernia sac, and the appendix was removed in each case, as they seemed irritated and inflamed. Each case had existed from birth or a few days thereafter, and was of the complete funicular type.

There were no fatalities and the cases progressed as well or better than the average case in the adult. Two of the earlier cases had some orchitis due to pinching the cord in repairing the internal ring.

Aside from the two mentioned and the 6-year-old boy, all that was done was tying off the sac after complete dissection. Each case with two exceptions was placed in the care of a special nurse, who had orders to change the dressings as soon as the child urinated or defecated. The

dressings and wound were protected as well as possible from the urine. In each case, where this plan was followed, the healing was by primary union. In one case, where the parents felt they could not afford the essential adjunct to success, the special nurse, and the child was trusted to the mother, there was a slight infection.

The 6-year-old boy was a city hospital case, and because of our inability to control him properly he got his dressings soiled and an infection resulted which was of short duration. I report this case in connection with the others more to show what has been my experience, that the boy of 4 to 6 years is harder to control than those younger, rather than for any connection he has with the other cases.

My studies and observations along this line of work has led me to the following conclusions:

1. There is no greater risk to the life or well being of the patient in early operations—first to fourth year, than later.

2. That the child in early infancy, 1 to 2 years, is no harder to care for after operation than later, in fact, easier than after 3 years of age.

3. That early operation offers the best chances for complete cure.

4. That the simplest operation is the best, generally tying off the sac is sufficient.

5. That the operation while simple in technic is exceedingly delicate, and unless great care is used lasting damage may be done from rough dissection or too tight closure around the cord.

DISCUSSION

DR. HARRY SHARP, West Baden: Dr. Ross has failed to mention the importance of the tendency to hereditary hernia. A child inherits the features of either parent, why not inherit a weak abdominal wall or large inguinal ring? Congenital hernia is common, and the lesson we are to learn is that the general practitioner should examine thoroughly the abdominal wall in the new-born and find the ring that is enlarged, keeping in mind the fact that the earlier the operation the better. The average practitioner puts on some mechanical device to correct inguinal hernia and postpones operation until later in life. He cannot promise a cure and sends the child through the important period of growth and development handicapped. What a blessing to humanity it would be if every child that has a congenital hernia at the time of birth could be operated on, so that it might go through life happy and normal. Those are things that we should remember.

The technic of the operation is very different in the child than in the adult. It is more delicate

and we have to be very careful in dealing with the infant. All that is needed is to draw the sac out of the ring, tie off and drop back, and there is no reason for making a new path for the cord.

DR. R. L. WOODARD, Indianapolis: Dr. Ross has given us a thoroughly practical paper and one that embodies the latest thought in the treatment of this rather frequent condition. I heartily agree with him in condemning the truss. I am convinced there never was and there never will be a truss that will satisfactorily hold a hernia in babies. The causes of infantile hernia, while at all times interesting and especially so to the internist, interests the surgeon only in so far as the actual condition found on operation, it then being a condition to be remedied by meeting the requirements of each case. Ninety per cent. of these are of the furuncular type and require only ligation of the sac and closure of the wound, which procedure requires only a few minutes' time accompanied by practically no shock and no mortality. Ten per cent. require radical operation, in which great care must be exercised not to injure the cord and vas, these structures being particularly susceptible to injury in children.

DR. J. R. EASTMAN, Indianapolis: No doubt high ligation of the sac and one tier of sutures passing through all layers will suffice to correct most cases of hernia in infants. This is the Czerny operation. Dr. A. J. Ochsner emphasized the importance of high ligation of the sac in connection with his original operation for femoral hernia. In this procedure, as is well known, no attempt whatever is made to close the canal, an unprotected defect large enough to admit several fingers frequently remaining. The tract of a femoral hernia, however, is not through a true canal, and as soon as the peritoneal sac lining the passage is removed it will become obliterated spontaneously. Nature abhors defects unlined by epithelium and closes them. No one has attempted to apply this principle in the correction of inguinal hernia. Like Dr. Ford, we believe that, whereas the high ligation is important, a proper readjustment of the abdominal coverings which are concerned is likewise essential. Ferguson gave the best explanation for the success of the operation of Girard of Geneva when he demonstrated that defective attachment of the internal oblique muscle bears a causal relation to inguinal hernia, and that overcoming this defective attachment provided security against recurrence. It is my experience that babies bear the loss of blood bravely. They take anesthetics, particularly ether, as safely, apparently as do adults, and owing to imperfect medullation of the nerve fibers, they bear pain well. Therefore, there is no valid reason why hernia in children should not be operated early. Often we are thus given opportunity to deal early with undescended testis, so often associated with hernia. This

operation is more easily accomplished while the tissues are soft and lax.

DR. H. R. ALLEN, Indianapolis: Occasionally it happens that we start to operate for hernia and it is no hernia at all. I have an example:

I was called to see an unusual case in a baby which the surgeon said had a femoral hernia such as we get in children 3 months old. My examination revealed a rigid spine, and I insisted that it was Pott's disease. However, the surgeon proceeded to cut into the hernia, as he supposed, and was rewarded with a gush of pus from a psoas abscess.

DR. A. M. HAYDEN, Evansville: Infants operated on for hernia should have no dressings applied to the wound, as they are sure to become soiled, causing infection and ending in suppuration. In my opinion, the best method is to tie the child's feet to the foot of the bed in order to restrict the movements, and use diapers, changing them as often as they are soiled.

DR. D. F. LEE, Indianapolis: I believe in operating hernia in the young. I believe hernia is nearly always due to congenital defects, and it is most propitious to correct it in infancy. I have the profoundest regard for the surgical judgment of Dr. A. J. Ochsner, but when he advocates the treatment of hernia in infants by rest in bed and the administration of drugs, and advice to prevent colds and abdominal distention, I think it about like telling children to play in the back yard but to remember that the cistern is open. Dr. Ochsner brings out what I think is a valuable point when he says that in hernias on the right side they have most commonly found in the sac a small loop a short distance above the ileocecal valve, which has a longer mesentery than other portions of the small intestine.

I took the stand in my paper on "Adhesions and Hernia," to say that an abnormal mesentery might be closed as a cause of hernia. In discussing my paper the professor of anatomy said this was untrue, for after reading a copy of my paper he had dissected twenty subjects only to find that this portion of the mesentery was not longer than other portions, but on questioning him it was found that the subjects he dissected were normal as related to the hernial regions. I therefore concluded that his findings, if they had any bearing on my claim, would in a measure support it.

Discussants have referred to operation on infants as being delicate in its technic. It is essential not to injure the cord in the male; do not transplant it; simply dissect out the sac, tie off and bring over the red muscle and suture it to Poupart's ligament in a manner not to restrict the circulation.

DR. ROSS (in closing): I disagree with Dr. Lee and insist that this is a delicate operation and one that may cause a great deal of trouble. No matter how carefully you ligate, your work

is fruitless if you fail to prevent wound infection, and I succeed by small dressings around the wound, changed very frequently.

I will guarantee that Dr. Hayden would change his mind if he had to take some of his own medicine, as he could not endure the constraint which he imposes on the infant.

SPOROTRICHOSIS; REPORT OF A CASE

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AND

W. W. CAREY, M.D.

FORT WAYNE, IND.

Attention was first called to fungi as systemic pathologic infectious agents in 1894 by Gilchrist, who described a skin disease later known as blastomycosis or oïdiomycosis. Since then cases of similar nature have been reported by Hektoen, Hyde, Montgomery and others, and the accumulating evidence makes it quite probable that this form of infection is by no means uncommon, but that it seems rare because most of the cases go unrecognized. It is probable that many chronic lesions apparently of a granulomatous nature diagnosed as syphilis, tuberculosis, actinomycosis, etc., have been in reality chronic, localized or systemic fungus infections.

Since time immemorial, members of the fungus family have been regarded as useful micro-organisms and have been used for industrial purposes as in bread and cheese making and fermentation of wines and beers. It is, therefore, something of a shock to realize that these heretofore regarded innocent micro-organisms may at times, like the colon bacillus, assume pathologic rôles and produce virulent infectious processes. It is now recognized that they may exist as a localized skin infection like ringworm, or as chronic systemic infections similar to the granulomas, and known as blastomycoses, oïdiomycoses, sacchyromycoses and sporotrichoses, according to the variety of fungus.

These infections pursue a chronic course and manifest themselves as ulcerations and subcutaneous abscesses or tubercles. Any part of the body may be affected, the organisms having been found in muscles, bones, kidneys, lung, etc. The skin infections often follow trauma, although in some instances no predisposing condition is known by the patient. In the systemic lesions the primary infection has usually been found in the lung, from which other organs, including the skin, may be invaded. Lung infections of this character, in the form of bronchitis, have been

noted, Breed reporting sixteen cases of yeast infection of the lung, and Hoxie and Lamar (*Jour. A. M. A.*, Jan. 13, 1912) report two cases of tracheo-bronchitis due to mould fungus.

Dr. Carey brought his case to my laboratory on Sept. 9, 1912, for bacteriologic diagnosis with a view of having an autogenous vaccine made. A very thorough bacteriologic examination revealed no organisms other than a few staphylococci albi and numerous small yeast-like spores. An opinion was then rendered that the infective

Some of these cultures were negative, but the majority showed the same mycelial growth. The skin nodules, on incision, were found to contain a grayish blood-streaked pus, which usually showed many of the spore bodies and an occasional fragment of mycelial thread. The cultures were inoculated with sometimes as much as $\frac{1}{2}$ c.c. of pus and watched carefully, but none developed any other organism than the fungus.



Fig. 1.—Sporotrichosis. Scars of old lesions on both legs. Fresh lesion developing on inner aspect of right thigh just above knee.



Fig. 2.—Sporotrichosis. Showing open lesion on calf with several old scars just above ankle. (Dark color of skin due to shadow.)

agent was a mould fungus and the case was subjected to further study. Cultures were made on 4 per cent. glucose bouillon and other media, on some of which developed, in about fourteen days, an exceedingly slow-growing facultative aerobic mycelium, which was at first creamy in color, later developing black pigment. This fungus, microscopically, showed branching threads, with many spores. Bacteriologic examination was repeated at intervals of a month or so and about sixteen different cultures made.

leading me to the conclusion that this was a true case of sporotrichosis. This case is, therefore, an interesting example of a newly recognized form of infection which must be taken into consideration in diagnosing obscure suppurating or ulcerating lesions.

At the present time only about 200 cases of fungus infection have been reported from all over the world, of which about thirty were mould infection, but I believe that as our knowledge of this variety of infection develops, fungus infec-

tion will become more common than is at present believed. Personally, I have seen three cases in which I believe a fungus infection existed. The first, in 1909, was a patient of Dr. C. L. Blue, and consisted of a burrowing ulceration of the cheek about $\frac{1}{4}$ inch in diameter and $\frac{3}{4}$ inch deep, and which healed under iodine treatment. The other case was one I saw recently by courtesy of Dr. F. A. Metts. This latter case began as a well-defined ringworm on the chin, about six months ago, gradually spreading until now the entire face is involved in a chronic infection.

CASE HISTORY BY DR. CAREY

A. S., male, age 27, single, American of Irish-American descent.

Family History.—Father living, health good. No serious illness until two years ago; had a severe neuritis and later pneumonia. Mother living, health good, never sick, no history of tuberculosis or specific disease on either side. One of a family of six, being the fourth in order of birth; two brothers and one sister living, all in the best of health, with a history of no serious illness. Fifth still-born and sixth lived ten days. Paternal grandfather living, age 83; health good. Paternal grandmother dead, age 76; paralysis. Maternal grandfather dead, age 50; drowned. Maternal grandmother dead, age 45.

Personal History.—Habits; smokes considerably (pipe) and drinks beer moderately, but never intoxicated. Easy temperament. No children's diseases except scarlet fever, which was very mild and with no sequelae. In 1906 had typhoid fever or an intermittent fever lasting some ten weeks. Fever was not severe, but patient got quite weak and lost 40 pounds. Later on recovered his normal health and weight. In 1904, two years prior to this attack of fever, he had his first "boil or abscess," as he called it. In March or April of 1904, while working in the railroad shops, he developed a pimple on the right leg, inner surface, lower third, which seemed to be deep down under the skin at first, gradually coming to surface, increasing in size and becoming very painful until pus formed, after which pain ceased. Abscess was incised. Others followed, occurring higher up on the leg and occurring both on the outer and inner sides of the leg. Some five or six months later they started in on the left leg, starting approximately at the same place and advancing the same way as before. No new abscess formed on the right leg after those were developed on the left, but there were discharging foci on both legs at the same time. Duration of this attack was over one year. Consulted various physicians, who made as many different diagnoses; consensus of opinion being that it was metal poisoning, for at the time he was working in brass. He worked during the

first five or six months, then being so reduced from loss of vitality he was forced to quit. Later on he took up office work, and about two years later had another attack, commencing practically the same as before. The prodromes from this time on were well marked. No fever, no chills, but a severe malaise accompanied by extreme weakness, mental hebetude and severe pain and aching, in the course of which there forms deep in the flesh a hard round or elongated nodule, not painful at first, but later on as it increases in size and the induration becomes marked the pain becomes more and more severe until the pus forms, after which pain ceases. This attack



Fig. 3.—Sporotrichosis. Healed lesions on right thigh and buttock.

lasted two years, patient working all the time. Would have his boils and they would get well, think he was alright and maybe in six months another crop would materialize. This has continued up to the present time.

Just prior to his typhoid attack he contracted a gonococcus infection, which ran the usual course with several manifestations later. On account of this, together with a desire to try and get rid of the old complaint, he presented himself at my office in September, 1912. The history given at the time was the same as just related.

On account of the present attack, which had been going on some little time, he had given up his office work and was doing outside work, but became so weak that he was compelled to give this up. Several incisions were made and pus drained. At this time he also had one or two lesions high up on the back and one under the arm, which were discharging pus.

Laboratory examinations made by Dr. Rhamy were as follows: Urinary examination was negative. The blood examination showed 11,000 leukocytes with 95 per cent. hemoglobin. Differential count showed:

| | | |
|--------------------|-------|----------------|
| Polynuclear cells | ..... | 65.5 per cent. |
| Large mononuclears | .. | 6.1 per cent. |
| Small mononuclears | ... | 20.9 per cent. |
| Transitional cells | ..... | 1. per cent. |
| Eosinophils | ..... | 6.1 per cent. |
| Mast cells | ..... | .4 per cent. |

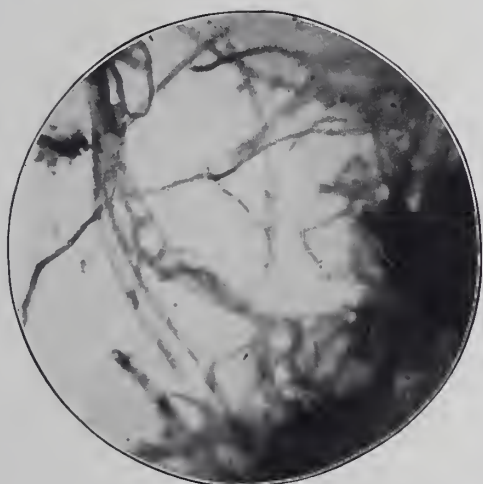


Fig. 4.—Sporotrichosis. 14-day-old culture in glucose bouillon; 1/12 oil immersion.

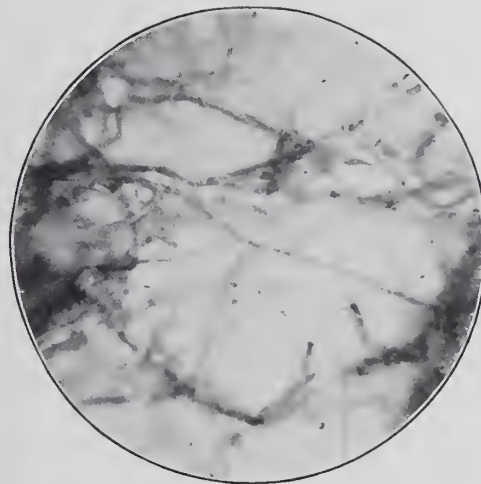


Fig. 5.—Sporotrichosis. 30-day-old culture in plain bouillon; 1/12 oil immersion.

The important feature of this blood examination is the eosinophilia. Wassermann and tuberculin tests were negative.

Treatment was instituted by using a vaccine made from the pus of a discharging abscess, at which time the diagnosis of sporotrichosis was made by Dr. Rhamy. The first pus obtained showed a mixed infection and the vaccine was made in September of 1912. I will say that the vaccine seems to hasten healing, but that it has helped in any other way I am not prepared to say. Some six weeks ago, and just at the time I was to have shown him to the Fort Wayne Medical Society he developed some fifteen foci of subdermal abscesses, all of which disappeared without breaking down, except one on the plantar joint of the big toe. This was incised and discharged freely. He had hardly recovered from this and was only up and out a day or two, when he developed a case of measles, from which he made an uneventful recovery. At present is suffering from a prodrome of the formation of

another abscess in the left groin, and which may go on and break down or disappear later on. No fever or increased pulse rate occurs, but increasing pain until one or the other happens. During the severe attacks the appetite is poor, at other times very good and he wants to eat all the time.

The internal medication has been potassium iodid, but the patient seems to have an antipathy to this, and takes it only in small amounts and very irregularly. The vaccines have been in use off and on in the same manner. During this last attack the patient is very much discouraged, and it takes such a great effort to attend to details that he would rather lie still and let things take their course. All this is quite contrary to his previous disposition. As the disease is one out of the ordinary, and of much interest, I sent specimens of pus and blood-slides to the

Research Laboratory of the Western Reserve University, with this letter as a result:

"Dear Dr. Carey:—Cultures, from the specimens of blood and pus that you sent me, were made on a special culture media much used by the French for this special purpose, glucose agar (Sabaroud), and after four days' growth I am able to report to you that the patient is suffering from a true case of sporotrichosis. I am very much interested in this disease, as I have seen probably ten or twelve in the skin clinics at Paris and Berne, Switzerland. However, in this country this is the first authentic case of which I have gotten track, and would be very glad to get a full history of the case, etc. As yet no one has ever done any especial blood work on these cases in this country, but these patients give a positive agglutination test with ground up old cultures of the sporotrichosis organism. Very respectfully,

HAROLD NEWTON COLE, M.D.
Cleveland, O."

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EDITORIALS

PROCTOCLYSIS

For a number of years we seem to have been blindly accepting the theory of the superiority of normal saline solution over any other solution or water for the purpose of rectal stimulation in our more desperate cases. When one stops to think that the diffusion between two isotonic solutions will be considerably less than that between solutions of different degrees of saline content, he sees at once the fallacy of the hypothesis. The simple experiment of introducing a small glass tube covered with a dialyzing membrane and containing normal salt solution, into a vessel containing water, reveals a very definite rise in the level of the contents of the tube above the level of the outside fluid. This, of course, means that the volume of the fluid in the tube has been increased and consequently the fluid portion of the blood would be increased by osmosis from a volume of water slowly introduced into the bowel, providing osmosis is the process here concerned.

It seems strange that this well-known principle has not been made of more practical utility heretofore in the procedure of proctoclysis. In a paper read before the Southern Surgical and Gynecological Association last December,¹ Hugh H. Trout presents the results of an experimental study concerning the value of water as a medium for proctoclysis. His report contains a few over 2,000 cases; every patient operated on during this period of observation was given either tap water or normal saline solution, excluding, of course, operations on the rectum and perineum. The list contains a vast majority of all surgical and gynecological operations, and the anesthetics used were nitrous oxid and oxygen, ether, chloroform and cocain. The method used was essentially that of Murphy with the exception of the use of a soft rubber catheter in place of the hard rubber nozzle, and counting the drops per minute by means of a visible dropper. The advantage of the soft rubber catheter is that in the majority

of cases the patient is not conscious of its presence in the rectum.

An inquiry was instituted among most of the larger hospitals in the country, both as to the method of preparing normal saline solution and the reasons for using same in place of plain tap water for proctoclysis. Two hundred and thirty-two hospitals responded, and the manner of preparation varied from careful attention to the minutest detail and containing potassium, calcium and sodium chlorid in varying proportions, filtered and sterilized, to the simple placing of two teaspoons of table salt in each quart of tap water. Since a teaspoon of salt may represent anything from 115 grains to 270 grains, depending on whether it is heaping or level or anything between the two, this lack of uniformity shows that in most cases the solution is not isotonic with blood.

Experimenting with sodium chlorid solutions, varying in strength from 0.1 per cent. to 5 per cent., and placing in each one drop of blood, it was found that hemolysis occurs sharply at two limits, namely the lower about 0.5 per cent., and the higher approximately 1.1 per cent. This fact is important in view of so many solutions being employed intravenously which are far removed from safe limits. Following instructions for preparations given by the majority of replies, and using the amount of fluid thought by many to be absorbed by the rectum, we would be forcing into an already weakened patient in the space of twenty-four hours, the average amount of salt consumed as a condiment by a normal man in one month. Contrary to the contention of many, the author did not find the salt solution less irritating, but even more so than ordinary water.

The author well remarks that if osmosis plays a part in the absorption of fluid from the rectum, then the lower the tonicity of that solution, the greater will be the absorption by the blood. Furthermore, there is no proof for the hypothesis that too much water might be absorbed for the cell to retain its continuity.

Every clinician has recognized the improvement often following certain cases of nephritis when placed on a salt-free diet and in view of the fact that transient renal irritation usually follows on the administration of an anesthetic, it would seem rational to exclude all unnecessary salt. In seven cases of the author's series, a transient albuminuria remained in every specimen for two days after an anesthetic when using salt solution per rectum, and disappeared at the end of twenty-four hours after water had been substituted therefor. Patients were then placed

¹ Trout, Hugh H.: Surg., Gynec. and Obst., May, 1913, p. 560.

on a limited salt diet, whereupon in every case the urine promptly returned to normal and remained so until discharged from the hospital. In none of these cases was there any edema. The phenolsulphonephthalein test failed to reveal any difference in function as between the two solutions under consideration.

In the entire series in both the salt and water cases, only 121 complained of being thirsty and of this number, 112 were salt cases. In 27, or over one-fourth of the cases, the patients actually complained of tasting salt, when they had absolutely no way of knowing they were being given saline by rectum and the solution being made up in the strength of 0.6 to 0.9 per cent. sodium chlorid. Again, the water cases have taken one-third more fluid by rectum than the salt cases, and the latter have required nearly twice as much water by mouth to relieve thirst.

There were 58 cases who had been previously operated on one or more times in other hospitals, and without suggestion all commented on the absence of thirst and decreased nausea, features so prominent after their previous operations. Thirty-two of these were given water and 26 salt solution per rectum.

It is interesting to note that during this series there were 287 operations on the rectum and perineum under exactly the same routine except the non-employment of proctoclysis, and with the exception of five they have all complained bitterly of thirst.

The writer feels that there is no more reason in giving salt solution by the rectum to prevent and relieve thirst than by mouth under like conditions, and, indeed, he noted that when given by rectum it sometimes produces the same nauseating and slightly toxic effects as after drinking. Two cases have been reported in the literature of a fatal termination from a strong stock solution of sodium chlorid, carelessly substituted for the physiologic solution, and Evans reports two additional cases wherein death was actually produced by the use of the physiologic salt solution.

Sodium chlorid is the least toxic of the group of similar metal chlorids, yet given in sufficiently large doses, it is a poison to all people and occasionally in small doses to a certain class of cases; hence it is contraindicated in patients with resisting powers lowered by operations and infections.

Since proctoclysis very often becomes a very necessary procedure and since in most cases it is productive, when properly controlled, of a very

considerable degree of comfort, it behooves us as clinicians to find the most effectual method of employment, and from the above practical series of experiments, it would certainly seem at least clinically proven that there are far more rational grounds for the employment of water for the medium of proctoclysis than any of the various saline solutions, particularly sodium chlorid.

THE PHILOSOPHY OF PREVENTIVE MEDICINE

In view of the enormous amount of energy and resources now being directed along the lines of preventive medicine and public health, and the rather prolonged period through which such forces have been at work, it seems strange that there is yet so much antagonism toward many of our public health laws. It is not alone among the poorer classes, whose daily wages are in immediate demand for the necessities of life, but even among the well-to-do there seems to be an inherent antagonism in many cases toward the fulfilment of one man's duty to his neighbor in regard to protecting his health. Perhaps if his dog had the mange, he would be good enough to lock it up that it might not spread to his neighbor's cat, but quite different when his child has the measles, scarlet fever, whooping cough or diphtheria. There is some excuse perhaps for the burden accruing from quarantine of the head of the household made up of a large number of children, and whose income barely meets the exigencies of his family when he is working at full time. It is our conviction that in such cases either the state ought to step in and help take care of such families, or some provision should be made whereby such a man could be early allowed to leave his home and to work under such surveillance as would permit of the detection of the early symptoms of the disease should it manifest itself in him. Even the heads of large manufacturing concerns and office plants, where large numbers of people are employed, are averse to making their employes' quarters any more sanitary than is absolutely required by the law. Is it not possible that we as physicians are not lending all of the support within our power to our health officers in the way of encouraging our people to comply strictly to the letter of the law? There is, no doubt, much that we can do to enlighten our patients in the way of teaching them that after all these laws are for their own good and the good of their neighbors and that their obedi-

ence thereto means the conservation of life and happiness to others. When the proposition is plainly put to an individual that he would not relish the idea of his neighbor's child being allowed to come within his family bounds, harboring within his throat a virulent strain of diphtheria bacilli; or allowing his own child to remain in his home with no warning to other children that their entrance into such house means a great likelihood of their contracting this dreaded disease, the problem becomes a relatively simple one for the average layman to solve.

In the *New York Medical Journal* for May 31, 1913, Alfred C. Reed contributes a very strong article on some of the philosophical phases of the branch of preventive medicine. He calls attention primarily to the vividness of the picture when the case really strikes home to us, that is when some one of our own dear ones is fighting a virulent disease. In order to combat such forces, it becomes necessary for us to study the natural history of disease and the great laws of Nature expressed in disease, and to substitute for such disease-favoring conditions, ones that will be hostile to the seeds of pathology and will foster the vitality of health. Such he describes as the science of preventive medicine. He calls attention to the valiant fights made by many of the pioneers in the fight against some of the contagious diseases, as McClintie against spotted fever; Carter, Lazear, Agramonte, Carroll and Reed against yellow fever, and emphasizes the insignificance of the fact that three of them succumbed in the conquest which served to make the whole world safer, fitter and cleaner.

He would classify preventive medicine into various departments; one, the prevention of communicable and epidemic diseases; another, the elimination of disease-producing features from industries; another, the prevention of infant mortality; another, persuading people to live sanely and hygienically, in order to avoid premature senescence and decay; another, the teaching of healthful sanitation, hygienic personal habits and regard for the welfare of one's fellows, and lastly the author would devote a large place to the study of mental hygiene and the maintenance of peace and poise of mind, preventing insanity, worry, morbid thinking and despondency.

An important ideal in the field of preventive medicine is the eugenic one of making each generation better than its predecessor both in its individual manifestations and in the development of races and nations. The key-note of such an ideal must be education in the principles of pre-

ventive medicine tending toward the conservation of life, health and happiness.

The author devotes considerable space to the consideration of a very recent growth in the field of preventive medicine, namely, that of mental hygiene, a new science seeking to control and prevent the present alarming increase of insanity and mental disorders of all sorts. It is well known that a large portion of insanities are due to entirely preventable causes, and to do away with preventable insanity, to standardize and improve the care and treatment of the insane and to inculcate eugenic principles, all preventing the reproduction of the mentally unfit, is the burden of the national movement for mental hygiene.

Naturally, it is the duty of the official sanitarian and health officer to take the lead in securing public measures and legislation favoring better public health and to make a detailed, intensive study into the causes of disease, advising measures for its eradication and prevention from the standpoint of an expert. He should protect the intelligent and reasoning minority from the blind prejudice, ignorance and indifference of the unthoughtful and careless majority, and should accomplish this through education, the best remedy for narrowness, vice, social wrong and preventable disease.

As the author well says, "The concept of preventive medicine had its roots in the origin of society. One man alone needs no science of preventive medicine. Neither has he social relations or obligations. The development of society and relations between man and man brought at first mutual antagonisms, and the remedy for these was found in organization and social cooperation. This meant the elevation of the common or general welfare above individual and personal interests. Such an ideal, at first not consciously realized, was operative in respect to tribal or national self-protection, in respect to the dealings of exchange and commerce, was evident in the development of religious conceptions and laid the foundations for the modern dogma and science of public health and preventive medicine."

The history of the development of quarantine is then traced by the author through the period of prosperity of the orient, the Milanese, Lombardians and Venetians. The latter people regarded it as a means toward fostering commerce, while to-day we regard it as a social duty necessary for the health and happiness of the community.

The author believes the name a misnomer and would have a new one coined that would sweep

into its signification every agency and influence which contribute to man's uplift, to his moral, ethical and esthetic development, as well as to his intellectual and physical perfection, that being the goal of preventive medicine.

From all this it is evident that in order to gain the best results through the forces of preventive medicine and public hygiene, we must bend our efforts primarily toward the detailed instruction in the various problems which the public at large must encounter. Our aim should be to impress on the layman the broader conception that the hardships which he may at the time be undergoing, are based on the consideration of the rights and privileges of the many rather than the individual. It should also be impressed on him how many times he and perhaps his own dear ones have enjoyed the benefits of the protection which is at present being asked from him, so that after all our fight must be made through the hard campaign of public education along the lines of preventive medicine.

THE "PATENT MEDICINE" BUSINESS

Anyone familiar with pharmaceutical legislation knows that pharmacists have been very insistent and persistent that they, and they only, should be permitted to supply the public with "patent medicines." It might have been thought that their desire thus to restrict the patent medicine traffic had for its object the public welfare on the assumption that pharmacists are best qualified to protect the people from worthless or fraudulent preparations. While the better class of pharmacists have refused to sell dangerous patent medicines, such as morphin-laden baby syrups, the average pharmacist esteems a patent medicine according to the profit which he can make from it. This is perhaps best illustrated by the warm endorsements of that villainous "gall-stone" humbug, "Mayr's Wonderful Stomach Remedy," which appear in *N. A. R. D. Notes*, the official organ of the National Association of Retail Druggists. Those who watch pharmaceutical legislation or read drug journals know that pharmacists in general have refused to assume any responsibility for the character of the patent medicines which they are so anxious to sell. The absurdity of restricting the traffic in patents to pharmacists unless they, in return, will assume responsibility for them, evidently is beginning to be appreciated, for the secretary-editor of the

American Pharmaceutical Association (*Jour. A. Ph. A.*, April, 1913, p. 425) has proposed that the association organize a council on patent medicines. The purpose of this council shall be to determine "whether there is or can be such a thing as a legitimate proprietary medicine which a druggist may conscientiously recommend and sell to the general public, and whether on the whole the public is benefited or injured by the use of such ready-made medicine." As the public has bought patent medicines largely on the actual or implied recommendation of the druggist, it is time that these should recognize their share of the responsibility for the evil and take steps to regulate it.

MYSTERY IN MEDICINES

As a means of impressing their victims, quacks are given to the use of technical or "Latin" terms which they use in the expectation that these are as devoid of meaning to others as to themselves. In the same way the nostrum promoters in their ignorance are fond of using chemical formulas or technical terms as a means of disguising the identity and composition of their nostrums.

As physicians have come to realize that these pseudoscientific and meaningless statements of composition usually amount to a confession of the worthlessness or dishonesty of the preparation, it is to be regretted that a firm which has one of its products described in *New and Nonofficial Remedies* should make use of this subterfuge. We refer to the Heilkraft Medical Company and its Etoimo. This preparation, recommended as a means of removing the stains caused by Scarlet R Salve, is said to be "a scientifically prepared compound of the Glycerineesters of the monocarboxyl derivatives of hydrocarbons, essential oils and of Cresol, U. S. P. (Merck)." Of course, the term "Glycerineesters of the monocarboxyl derivatives of hydrocarbons" is mystifying until we recall that fats are esters (or salts) of glycerin and such fatty acids as oleic acid, palmitic acid and stearic acid, and that these acids are the monocarboxyl derivatives of hydrocarbons. In this way the mystifying statement of the composition of Etoimo can probably be reduced to the simpler statement "an ordinary mixture of a fatty oil, flavored with some volatile oils and a dash of Cresol added."

Will ignorant promoters ever learn that in medicine, as in other things, mystery and fraud are boon companions, equally to be shunned?

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

ONE of our correspondents says the discussion of the subject of fee-splitting is ill-advised. Of course, it will be considered ill-advised by those who favor fee-splitting. If fee-splitting has one solitary thing to commend it, then it will stand all the publicity we or anyone else can give it, and win out.

WE are well aware of the fact that some of our readers do not want the fee-splitting subject discussed, and the reason is obvious. Some of our readers want the fee-splitting practice to continue. The reason is likewise obvious. But no logical defense of fee-splitting has been put forth by any one, and many reasons have been advanced to show that the practice is demoralizing and can have no other end than a discrediting one for the medical profession.

SOME newspapers must have difficulty in getting copy, as evidenced by the scare head-lines in the *Greensburg Times*, of May 25, in which the heading, "Dig up Corpse at Poor Farm; Medical Students then Convey it to a Vacant House and Dissect it," is made to apply to an episode which occurred before the Civil War, and was recently reported by Dr. G. W. H. Kemper, in the *Indianapolis Medical Journal*. A hasty glance at the sensational head-lines would indicate that the episode was of recent occurrence.

THE Missouri legislature is considering a bill to prevent the division of fees by members of the medical profession. Dr. Emory Lanphear of St. Louis, a notorious fee-divider, is sending out frantic appeals to doctors asking them to help defeat the bill. Unquestionably the most certain way to secure the passage of the bill would be to distribute among the legislators some of the rank commercial announcements which Dr. Lanphear has sent out from time to time in making his bid for business and a chance to overcharge patients. We believe that the best element in the Missouri medical profession will work for the passage of a bill to prevent such traffic as that carried on by Dr. Lanphear and other fee-dividers.

OUR readers will be interested in what Dr. A. W. Brayton, editor of the *Indianapolis Medical Journal*, has to say concerning Friedmann and his consumption cure. Dr. Brayton has recently returned from a visit in the East where he attended a number of clinics and witnessed the administration of the Friedmann treatment.

In an interview in the *Indianapolis News*, he says, "There is no recognition of Dr. Friedmann in the United States or Germany by scientific medicine. The whole movement appears to me one purely mercenary. The Friedmann people are fighting among themselves. It is a get-rich-quick scheme, which could only be promoted in the United States. The American people and the American press should not make our unfortunate consumptives a source of gain for a rapacious foreigner promoting a remedy of unproved merit by establishing state institutes to make and sell the cultures in violation of the spirit of our laws."

The Journal of the A. M. A., in a recent issue, points out that even the daily papers are beginning to realize that the newspapers and the American public have been exploited by Friedmann in his efforts to palm off a spurious consumption cure. Many of the newspapers in Indiana have joined the procession of those who are now criticising Friedmann and his "cure." When Friedmann first landed in America, the medical press was severely criticised for an attitude which was said to be unfriendly as well as inhuman, and not a few newspapers loudly advocated an immediate action of Congress which would permit Friedmann to use his "cure" on any and all tuberculous patients in this country who cared to seek his services. It looks now as though an apology is due the medical press for very justly warranted pessimism and a demand for suspension of judgment until Friedmann's claims became substantiated to the satisfaction of those capable of judging.

JUST why the Governor should delay appointments on the State Board of Medical Examination and Registration can be accounted for through political influence. With practically the entire medical profession a unit in asking that Drs. Spaulhurst and Smelser be not reappointed, the Governor seems to be listening to a few politicians who are working the sympathy racket to the bitter end in an effort to keep two undesir-

ables on the Board. Aside from the question of fitness for the position, which should take precedence over everything else, we contend that the Governor can satisfy political ends by the appointment, as members of the Board, of physicians who are not only of the same political faith as the Governor, but backed by as much political influence as that which now bolsters up the incompetents whom the Governor has been asked to displace. However, many of us are amazed to think that the Governor has the slightest wish to retain on any board men whose fitness for the position has been so generally questioned. It was bad enough to appoint them in the first place, and it is still worse to retain them now that their terms have expired. We care not what the politics of the men on the board are, but we do care for, and the Governor should care for, the efficiency of the members of the Board.

THE Indianapolis Medical Society has taken a step in the right direction by passing the following resolutions concerning fee-splitting:

WHEREAS, It being a matter of common belief among members of the Indianapolis Medical Society that there are those of our membership who have participated in the questionable procedures of fee-splitting and such allied practices; and

WHEREAS, It being also a matter of general belief among our membership that the complete abolition of such alluded-to practices, wherever occurring in our state, will undeniably inure to the benefit, not only of the members of the medical profession, but to the entire citizenship of the state, therefore be it

Resolved, That it is the sense of the Indianapolis Medical Society that each member thereof do his obvious duty fully, to the end that criticism may not obtain properly, relative to the business transactions of a professional character, of any member thereof. Be it further

Resolved, That the delegates from our society to the next (and succeeding) state association(s) take the initiative if possible, in securing action by the House of Delegates, antagonistic to the questionable procedure of fee-splitting and such allied practices. Be it also

Resolved, That the secretary of our society is hereby directed to memorialize the next state association's officers at once, expressing to said association the belief and desire, upon our part, that it may formulate and promulgate a suitable and just plan for properly dealing with fee-splitting and such allied practices.

WITHIN the last year or two, bills have been introduced in several state legislatures making fee-splitting on the part of medical men a criminal offense. So far as we know, no bill of this kind has as yet become a law, but laws preventing fee-splitting are certain to come in the very near future, and all because the public is awakening to the fact that the supposedly honorable and ethical medical profession is stooping to the worst form of graft and commercialism to acquire gain—namely, trafficking in the ills of humanity. What a sad commentary on our boasted high ideals and the principle of ethics we trample under foot. How discrediting and humiliating, but how well deserved is the punishment! And yet there are those who lamely defend fee-splitting, and not a few who say that we should not discuss the subject, and above everything else should not say harsh things about those who engage in fee-splitting. Surely there is something radically wrong with the consciences and logic of some of the members of the medical profession. However, we hope and pray that the medical men who are now engaged in the questionable practice of fee-dividing, a practice which most of them are ashamed to defend and which they desire should be kept under cover, will see the error of their ways and change their tactics. Certainly there can be neither justness nor honor in a practice that is condemned by the most prominent physicians in the country, by nearly all medical colleges, by many medical organizations, by the recently incorporated College of Surgeons, and last, but not least, by the public, which is now voicing protesting sentiments in legislative bills which have a fair show of becoming laws in the very near future.

IN the defense of fee-dividing the one and only argument advanced is that the physician who refers the case will not be paid adequately, or, perhaps, not paid at all, unless the surgeon pays him. This is no argument worth considering, and is a lame excuse for a vicious practice. Whose fault is it that the referring physician is not paid adequately or perhaps not at all? Every right-thinking physician admits that the referring physician is deserving of just compensation and that the fee should be paid. But why place the responsibility of collecting this fee on the surgeon, and why secrecy concerning it? Can any one dispute the assertion that the honorable and eminently fair way of dealing with the patient is for the referring physician and the surgeon to render separate and distinct bills for services rendered? And on the whole, is not this the only business-

like way of doing it? The crux of the whole matter is that objection is offered to this honorable way of dealing with the situation because it does not permit of the commercializing of the ills of the patient to the extent that is desired by those who would profit by means that do not admit of close scrutiny. The fact that the family physician, through any reason whatsoever, is too poorly paid or not paid at all, is absolutely no excuse for unfair dealing, and secret shrewd practices which must be kept from the patient in order to have them go through. The physician who refers the case should stand in a better light than that of a dependent on the bounty of the surgeon, and he should have enough independence and self respect to work out his own salvation without asking or expecting someone else to do it for him. The "single fee" proposition does not save the situation, and does not stand the test which every physician should be willing to have given his acts. It places both surgeon and referring physician in a false light and is too likely to be the basis of barter and trade of patients as is the case now—the patient going to the highest bidder and not necessarily or usually to the one most capable of doing the work. The solution of the whole matter rests with a decision on the part of the medical men to charge separately and independently for all services rendered, to educate the public to a greater appreciation of the value of services rendered by the general physician, and the encouragement of more self respect and independence on the part of those who now profit by the secret division of fees.

THE American College of Surgeons was organized at a meeting in Washington, May 5, 1913. Four hundred and fifty prominent surgeons of the continent of North America came together at the invitation of an organization committee which was appointed by the Clinical Congress of Surgeons of North America, at its meeting in November, 1912. The organization was completed by election of officers and the adoption of by-laws and rules of procedure for effecting the purposes of the organization.

The name of the corporation is the College of Surgeons. The object of the College shall be to elevate the standard of surgery, to provide a method of granting fellowships of the organization, and to formulate a plan which will indicate to the profession and the public that the surgeon possessing such a fellowship is especially qualified to practice surgery as a specialty.

The College shall consist of all members of the corporation to be known as Fellows. The Fel-

lows of the College shall be graduates in medicine who are legalized to practice medicine in their states and provinces, who have made application for fellowship, such application to be endorsed by three Fellows of the College, one of whom shall be a member of the Board of Governors, and who meets the qualification requirements that shall from time to time be established by the Board of Regents, and who shall be elected to fellowship by the Board of Regents on recommendation of the Committee on Credentials.

All Fellows of the College shall be designated a Fellow of the College of Surgeons, and shall be authorized and encouraged to use the letters F.C.S. after his name on professional cards, in professional directories and in scientific articles published in surgical literature.

An initial fee of \$25 shall be required of each member of the College by the Board of Regents. The annual dues will be \$5. A directory containing the names and addresses of the Fellows of the College of Surgeons, arranged by states, provinces and colonies, will be issued each year.

Any member of the College may be expelled for unprofessional or other conduct inconsistent with the rules and regulations of the corporation by a majority vote of the Board of Regents. It will be the spirit of the Association to open the fellowship to all competitors in surgery without favor. Scientific attainments, surgical ability and unquestioned moral character, measured by the college's standards, shall constitute the measure for fellowship.

All applications for membership should be forwarded to the secretary of the corporation. The first formal conferring of fellowships will occur in November, 1913, and the first directory of Fellows will be distributed at that meeting. The secretary of the corporation is Dr. Franklin H. Martin, 31 N. State Street, Chicago, Ill.

Every physician who desires to be known as a surgeon will aspire to fellowship in the American College of Surgeons. Fellowship in this corporation carries with it the privilege to use the letters F.C.S. after his name, and indicates to the profession as well as to the public that he is especially qualified to practice surgery. There are, however, certain limitations which will bar many surgeons from fellowship, and among these is the one which provides that no surgeon who is a fee-divider in any form can secure fellowship or retain it after once it has been granted.

We commend the American College of Surgeons for this stand, as also for the attitude which carries with it a demand that all Fellows shall be of unquestioned ability and irreproachable ethical and moral character.

DEATHS

JOHN F. GRAHAM, M.D., aged 62, of Marion, fell dead in his office June 4, from cerebral hemorrhage. Dr. Graham was born in 1851.

ISAAC N. SEAL, M.D., aged 86, one of Grant County's best known pioneer citizens, who has practiced medicine for thirty-five years at Hacklemann, died May 13, at the home of his son.

WILLIAM COOPER, M.D., of Sheridan, died at his home, May 23, from Bright's disease. Dr. Cooper was an active participant in the affairs of his community and had built up a large practice in his profession.

ALRICK T. PAYNE, M.D., Medical College of Ohio, Cincinnati, 1875, one of the oldest practitioners of Terre Haute; coroner of Vigo County from 1894 to 1898; died at the home of his daughter in that city, May 12.

ROBERT PARKS WHITE, M.D., a prominent practitioner of Fort Wayne, died at his home May 19, aged 53. Dr. White was a member of the American Medical Association. He graduated from the University of Pennsylvania in 1886.

NEWS NOTES AND PERSONALS

INDIANAPOLIS

DR. WM. F. JOHNSON was nominated on the Progressive ticket for Mayor of Indianapolis at the primaries recently held.

DR. A. W. BBAYTON attended the meeting of the American Dermatological Association at Washington, D. C., May 6 and 8.

THE Polk Sanitary Milk Company was host to the members of the Indianapolis Medical Society at a dinner and an illustrated lecture by Dr. North of New York. Almost 200 members of the Society are reported to have attended, all of whom express pleasure for a pleasant and profitable evening. It would be a fine thing if half this number could be persuaded to regularly attend the meetings of the Society.

At the instigation of the State Board of Charities, the Marion County grand jury returned indictments against A. L. Kilburn, Superintendent of Faith House, Indianapolis, Dr. U. A. Lyle and Dr. F. P. Gray, Lafayette, charging these men with grand larceny and conspiracy to commit a felony. The circumstances on which these indictments were returned are reported to be as follows: Mr. Geo. F. Whistler desiring the services of a maternity hospital, consulted Drs. Lyle and Gray and was referred by them to Mr. Kilburn of the Faith Home. A charge of \$575 was made by Mr. Kilburn, which amount later was shown to have been divided among those having referred the case; Drs. Lyle and Gray, it is reported having received \$125 apiece. The case came to trial, but was dismissed on recommendation of the prosecutor, because Mr. Whistler refused to testify against the defendants. If the Marion County grand jury was willing to return indictments against these men for an alleged crime growing out of fee-splitting, perhaps if their attention were called to it, they would be equally willing to return indictments against fee-splitting specialists and general practitioners. We commend this case to the serious consideration of the physicians and surgeons of Indiana. Indictments have been returned by a grand jury against physicians charging them with serious crimes because they accepted large rebates. If we understand the case correctly, it represents an exact parallel to what happens when fees are split between specialists and general practitioners. It did not come to trial in all probability because the principal witness for obvious reasons did not wish notoriety. It was an ideal situation for the fee-splitter. He had a good opportunity to gouge, and as usual, he did not overlook opportunity. It is a most interesting and suggestive observation that two of the defendants in a case of this kind were physicians. One is almost tempted to inquire if it was their first offense?

GENERAL

DR. HENRY JAMESON, president of the Indianapolis Park Board, has returned from Europe.

DR. HERMAN M. BAKER of Stendall was married to Miss Grace Sleno of Evansville, on April 30.

DR. CHARLES R. BIRD of Greensburg expects to return July 1, after a three months' tour abroad.

THE new Elkhart General Hospital is expected to be ready for occupancy within a very short time.

DR. HOMER H. WHEELER announces the removal of his office to 507 Hume-Mansur Building, Indianapolis.

ANDERSON is to have a new non-sectarian hospital. The Deutscher Fortschritts Verein is at the head of the affair.

It is reported that Dr. J. H. Ferguson of Kempton is using the venom from a rattler in the treatment of epilepsy.

DR. WILL E. THOMAS of Clarksburg was elected president of the Fourth District Medical Society at its recent meeting.

DR. JAMES H. WALKER of Henryville has recently been appointed consulting physician at the Indiana Reformatory at Jeffersonville.

DR. R. O. McALEXANDER has been appointed president of the Board of Health of Indianapolis, and Dr. J. H. Ford vice-president.

DR. HUGH M. MILLER has succeeded Dr. C. A. Daugherty, deceased, as medical director of the Epworth Hospital, South Bend.

DR. D. E. CRIPE of Hillisburg has recently secured a patent on an automobile appliance which he terms the "Unity Carbureter and Starter."

DR. H. J. MYERS, Professor of Biology of the Indiana University, spoke on "Heredity" to the members of the Vigo County Medical Society at Terre Haute, May 20.

DR. IRVIN ARTHUR has returned to his home in Princeton and resumed his practice, after taking a post-graduate course in medicine at one of the leading medical colleges in Chicago.

THE trial of the cases against Dr. William E. Craig and Alonzo M. Ragsdale, charged with the murder of Dr. Helene Knabe, which was set for June 23, has been continued until the Fall term of court.

DR. CHARLES W. SLICK of South Bend has been appointed by Governor Ralston as one of the delegates from Indiana to the National Conference of Charities and Corrections to be held at Seattle, Wash., July 5 to 21, 1913.

THE "Rev." D. R. Schiller, a divine healer of Rockford, Ill., has recently been arrested in Greencastle on the charge of obtaining money under false pretences. Charges have also been preferred against the "Rev." Schiller in several other nearby cities.

JAY CRAVEN and H. E. Bishop, State chemists, accompanied by several students of the Indiana University, are towing and rowing up White River, with a laboratory on a houseboat, in order to examine the water at different points along the stream.

THE Indiana Physio-Medical Association, which closed its annual session at the Washington Hotel, May 8, decided to re-establish a physio-medical college in Indianapolis through the creation of a department in the Indiana University School of Medicine.

DR. CHARLES P. EMERSON, Dean of Indiana University School of Medicine, has been appointed chairman of the committee on medical charities for the State Conference of Charities and Correction, to be held at Gary, November 15 to 18, 1913.

THE Ninth Councillor District of the Indiana State Medical Association held its semi-annual meeting in LaFayette, in the Y. M. C. A. Building, May 15. Those who presented papers were Dr. N. A. Cary, Dr. F. A. Tucker, Dr. Adah McMahan and Dr. A. C. Croftan of Chicago.

THE druggists of Indiana are having great difficulty in getting rid of the dope fiends without selling them dope. In Michigan City it has been provided that all drug victims may procure free prescriptions from the city health board at the discretion of the health officers.

DR. E. S. BULLOCK of Silver City, N. Mex., was present at the meeting of the Medical Society May 6, and read a paper entitled "Compression of the Lungs in Tuberculosis." He had just previously attended the American Climatology Association held at Washington, D. C.

THE eighty-ninth semi-annual session of the Union District Medical Association closed at Liberty, May 15. The association is composed of about one hundred physicians in Fayette, Rush, Union, Wayne, Franklin and Marion counties in Indiana, and Butler, Preble, Hamilton, Ross and Montgomery counties in Ohio.

DR. SIMON FLEXNER of the Rockefeller Institute for Medical Research has deposited with Dr. Homer Woolery of Bloomington, some of the influenzal antimenigitic serum, which can be obtained gratis by the medical profession of Indiana under the same terms for administration as was the serum for cerebrospinal meningitis, while in its testing stage.

IN the May number of THE JOURNAL we published an abstract taken from *The Journal A. M. A.* on "The Deadly Bichlorid Tablet." We have recently received a letter from Otto Raubenheimer, editor of the *Practical Druggist*, who asks that he be given credit for agitation of the subject, and refers to his article in the *Practical Druggist* of March, 1913.

DR. SAMUEL E. SMITH of Richmond, superintendent of the Eastern Indiana Hospital for the Insane, has been recently appointed by Governor Ralston as a member of the State Penal Farm Commission. The commission is authorized to select a suitable site of not less than 500 acres for the state farm, for which an appropriation of \$60,000 has been provided.

ON May 23, one hundred and eighty members of the Indianapolis Medical Association attended a banquet in the assembly room of the Sunlight Milk Plant of the Polk Sanitary Milk Company. Before the dinner the party was conducted through the various departments of the plant, and the details explained to them. The principal speaker of the evening was Dr. Charles E. North, city sanitarian of New York.

DR. ROSCOE L. LEE of Newcastle has recently filed a suit against Dr. Charles R. Applegate of that city, to enjoin him from practicing medicine there. Dr. Lee alleges that he purchased Dr. Applegate's practice with the agreement that Dr. Applegate would not again engage in the practice of medicine in Newcastle. Dr. Applegate asserts that the contract is void, because he has been in partnership with Dr. Lee since that time.

THE New York Board of Health recently adopted a resolution forbidding the use of living bacterial organisms in the inoculation of human beings for treatment of disease unless permission is obtained from the board. Although the name of Dr. Friedmann was not mentioned in the resolution, the effect of the measure will be to prohibit the further administration of his treatment for tuberculosis, except under special permit from the board.

JUDGE FOX has refused to sustain a motion for a new trial asked by Dr. Charles Marvel and Dr. Richard Schillinger on the grounds that the verdict in the case of Earl Savage against the physicians did not substantiate the evidence, that Judge Fox erred in his charge to the jury, that the verdict was contrary to law and that the damages awarded were excessive. The jury has returned a verdict giving Savage damages to the amount of \$2,000.

THE State Board of Medical Registration and Examination, at a special meeting at the Claypool Hotel in Indianapolis, May 21, revoked the license of Dr. Pierre L. Stewart of Muncie, against whom charges of immorality were filed some months ago.

The Board also established reciprocal relations with regard to honoring state licenses with the states of Oklahoma and Virginia. The total of states which now have reciprocal relations with Indiana is nearly forty.

OUR readers will be interested in knowing that they can now procure the Report of the Chemical Laboratory of the A. M. A. for 1912. As physicians are beginning to realize that the existence of many fake proprietaries may be ascribed to insufficient knowledge of the chemistry of drugs (see "Who is Responsible for the

Lithia Water Fraud?" editorial, *Jour. A. M. A.*, May 17, 1913, p. 1544), we recommend to our readers the purchase of a copy of the laboratory report. The report is published by the American Medical Association, 535 Dearborn Avenue, Chicago, Ill., and will be sent post-paid on receipt of 25 cents.

THE Travel Study Tour of American Physicians to the Seventeenth International Congress of Medicine will sail from New York on July 3rd, on the North German Lloyd steamship *Bremen*. About seventy-five physicians will participate in this tour, the chairman of which is Dr. W. B. de Garmo, New York City. Secretary, Dr. Richard Kovacs, 236 East 69th Street, New York. In cooperation with the International Committee for Post-Graduate Medical Education, arrangements have been made to visit clinics and hospitals at Paris, Munich, Vienna, Dresden, Berlin, Cologne, Brussels, etc., and inspect the health resorts of Carlsbad, Marienbad, Nauheim, Hamburg and Wiesbaden. No American party ever enjoyed similar privileges. The party will finally attend the International Congress of Medicine, August 6 to 12, in London.

SINCE May 1, the following articles have been accepted for inclusion with New and Nonofficial Remedies:

- Luminal (Merck & Co.).
- Sodium Luminal (Merck & Co.).
- Magnesium Perhydrol (Merck & Co.).
- Magnesium Perhydrol, 25 per cent. (Merck & Co.).
- Magnesium Perhydrol, 25 per cent. Tablets (Merck & Co.).
- Cholera Agglutinating Serum (H. K. Mulford Co.).
- Diphtheria Bacterin (H. K. Mulford Co.).
- Staphylococcic Cultures (H. K. Mulford Co.).
- Luminal (Farbenfabriken of Elberfeld Co.).
- Luminal Tablets, 1½ gr. (Farbenfabriken of Elberfeld Co.).
- Luminal Tablets, 5 gr. (Farbenfabriken of Elberfeld Co.).
- Luminal Sodium (Farbenfabriken of Elberfeld Co.).
- Solution of Amylene-Choral (50) Kalle (Kalle & Co.).

CORRESPONDENCE

FEE-SPLITTING

In previous numbers of THE JOURNAL we have published some correspondence concerning fee-splitting. The subject was opened by Dr. M. F. Porter of Fort Wayne, who suggested that the general medical profession, and even the public, is entitled to know who are and who are not fee-splitters. THE JOURNAL will publish the names of those who are opposed to, and also the names of those who are in favor of fee-splitting, and will make an endeavor to find out the sentiments of every member of the Indiana medical profession. There cannot be the slightest objection to publicity of the facts, and every physician in the state should be perfectly willing to uphold his convictions and to have it known what his attitude is on a subject that is considered of considerable importance, and of direct interest to the medical profession and public. In subsequent issues of THE JOURNAL we shall not publish a man's name as opposed to fee-splitting unless he volunteers the information *that he is not splitting fees at the present time and does not intend to do so in the future*. This statement seems justified in view of the fact that some of the physicians who registered themselves in the May number of THE JOURNAL as being opposed to fee-splitting are charged with being notorious fee-splitters, and have not given any specific indication that they have had a change of heart.

FORT WAYNE, IND.

To the Editor:—To my mind all forms of fee-splitting are dishonest. The surgeon who divides a fee robs somebody. If he makes his fee large enough to permit him to retain a fair amount for his work after paying the doctor, who referred the case, his commission, then he robs the patient. If the combined fee is no greater than should be charged for his work alone, then he is robbing himself or his family of that to which they have a just claim and at the same time places himself as a cut-rate surgeon in the eyes of his professional fellows. If the division of the fee is made openly and the fee is collected by the surgeon, then he (the surgeon) robs the referring doctor of his self respect, for when a referring doctor accepts a fee from the surgeon, he acknowledges himself as a dependent, he becomes an object of charity. He (the doctor referring the case) has performed a valuable service for his

patient and should have the moral courage to collect his fee from the patient, and if he asks or allows the surgeon to collect this fee for him, he acknowledges his dependency.

Much of the good that doctors may do in the world depends on the confidence the people have in the medical profession. To deal with patients as cattle are dealt with tends to destroy this confidence. Already one frequently hears the remark, "My doctor said I needed an operation, but I guess he was thinking of the fee." Let such a lack of confidence as is evidenced by this remark become wide-spread, and it needs no great stretch of the imagination to see the incalculable loss of life and efficiency that will result therefrom.

The natural tendency of fee-splitting is to cause unnecessary operations. If a surgeon accepts a patient on a fee-splitting basis, he must operate or he will have no fee of consequence to divide. After a doctor, who is a fee-splitter, has referred two or three patients to a surgeon and had them all returned to him without operation—and hence without remuneration—he will quit referring patients to that surgeon and see to it in the future that his patients go to some one who will operate and divide the fee.

I venture the assertion that the time will soon come when no doctor will be admitted to a medical society of standing without obligating himself not to split fees under any guise whatsoever.

The Indiana University School of Medicine will allow no one on their faculty who indulges in this nefarious practice, if it can be proven.

The Western Surgical Association asks all applicants for membership to promise not to give commissions in any form, secretly or openly. The College of Surgeons has taken the same stand. In my own judgment, fee-splitting will soon be pronounced by the law as a misdemeanor. One often hears it said that "there are two sides to this question of fee-splitting," and so there are—a right side and a wrong side. I am particularly anxious that the profession in Indiana should come out strongly for the right side, and do it before we are forced to do it by the law, the press, public opinion or outside pressure of any sort. To my mind, the reason for fee-splitting is, in and of itself, sufficient to condemn the practice—money.

A dealer in hides and pelts may make money, the chief aim in his work, and still retain his self respect and the respect of his fellows, but with the physician it is different.

Yours truly,

MILES F. PORTER.

Dr. Emory Lanphear, a notorious fee-splitter of St. Louis, has sent a circular to the medical profession, the burden of which is that a general physician should not be a coward, but should fight for a division of fees as his part of the plunder received from the patient by the surgeon. Many of us believe that the referring physician is either a coward or a knave if he indulges in the secret division of fees on the basis proposed by Dr. Lanphear. Dr. Lanphear's letter, which accompanies the circular, is herewith published, together with some of the answers and comments from Indiana.

ST. LOUIS, MO., May 15, 1913.

My Dear Doctor:—I hope you believe in "division of fees" between specialists and general practitioners, and I want to interest you in the American Hospital (headquarters of the American Polyclinic) on that basis. I would like to have you sign and return the enclosed card. If you never send a pay patient there will be no harm done; if you do, you will become part owner of a hospital which we are going to make the most popular in the Mississippi Valley. Please note: the card states explicitly that you are to have 40 per cent. of all fees (exclusive of hospital care, of course) received from your patients sent to our staff for operation or treatment. Hoping for an immediate and favorable reply, for which a stamped envelope is enclosed, I remain,

Most cordially yours,

EMORY LANPHEAR.

To the Editor:—You have asked me for a word of comment on the Lanphear letters. Neither time nor space will allow me to go into detail, but to my mind the dominant notes in these letters are avarice, hypocrisy and cowardice.

A man may fear the pangs of poverty, but if he be honorable and brave, he will suffer them rather than resort to questionable methods to get money.

There is such a thing as honorable fear. To acknowledge fear is oftentimes an act of great bravery.

The reckless acts of the desperate should not be mistaken for bravery.

The letter is so palpably wicked that its wide publication would in my opinion greatly help in advancing the cause of professional righteousness.

Sincerely yours,

MILES F. PORTER.

WEST BADEN, IND., May 25, 1913.

To the Editor:—The enclosed copy of a letter written to Dr. Lanphear will give the position of Drs. Dowden and Sharp on the question of fee-splitting.

DRS. DOWDEN AND SHARP,
Per H. C. Sharp.

May 17, 1913.

Dr. Emory Lanphear,
St. Louis, Mo.

Dear Sir:—I must say your proposition submitted to us by your letter of May 15, is at least daring. While I have no desire to deliver a lecture to you upon medical ethics and personal honor, your proposition to me seems to be devoid of both. When a patient comes to me for consultation, I charge him a fee commensurate to the services rendered. It then becomes incumbent upon me to give that patient the best possible advice as I see it without any consideration whatever about future remuneration. I certainly could not feel that I was fulfilling my duty by referring them to an institution that is compelled to resort to the methods stated in your letter of May 15, to secure business.

Trusting that there will come a time when you will come to see that the calling of the medical profession is one higher than a means to secure profit, I remain,

Yours,
DRS. DOWDEN AND SHARP,
Per H. C. Sharp.

ST. LOUIS, MO., May 28, 1913.

My Dear Doctor:—I am informed that a law has been passed in your state prohibiting division of fees between specialists and general practitioners. A similar bill was "killed," through my efforts, in this state. Its injustice to the man who bears the greater responsibility in a surgical case is so great that it was not difficult to stop its enactment.

The enclosed "open letter" expresses my opinion on division of the fee. If you agree with me, I shall be glad to have you join our American Hospital Association by signing the accompanying slip and returning it to me. Many doctors of your state are joining—your state law cannot cover interstate transactions.

Sincerely yours,
EMORY LANPHEAR.

SHOALS, IND., May 29, 1913.

Dr. Emory Lanphear,
St. Louis, Mo.

My Dear Doctor:—Your letter of 28th inst. received and contents noted. I would like to inform you that there has been no legislation in Indiana on the subject of division of fees about which you write, and in my opinion if such a thing could be legislated out of existence it should have the support of every physician and surgeon who desires to give every one concerned a square deal. I want no stock in the American Hospital, and would not let a surgeon come to see a case of mine who even hinted a division of fees. If I can't charge what I think I have earned in a case, I will not call a man in to see the case who will charge 40 per cent. more than he is worth and expect him to give the 40 per cent. overcharge to me.

Hoping you will soon see the "error of your way," I am,

Fraternally,
CHAS. E. STONE.

You can see from the above how I stand on division of fees.
C. E. S.

INDIANAPOLIS, IND., May 20, 1913.

To the Editor:—A few weeks ago I read and published a paper relative to certain business aspects of medicine. I find that some of my colleagues have misinterpreted both the text and motive of this paper. In order to make myself perfectly clear I wish to make the following statement.

My object of presenting this paper was to express my own views and methods of handling a certain proposition. I had found this method satisfactory and wished to hand it on to others. My entire proposition is this: In many surgical cases the patient will raise the fee for the surgeon, but will let the physician wait, perhaps indefinitely, for his compensation. This, to me, seems very unfair. It has happened so often in my work that I began to feel that I should protect, financially, my medical colleague whenever he needed it.

My method consists in telling the patient that a certain fee covers the operation and my attendance during convalescence at the hospital and that this same fee covers the services of the physician over the same period of time. In other words, a joint bill is rendered. In practically every case this contract is made before the operation. I have done this many times and have always found it satisfactory. In the rendering of a joint bill there are three parties to the con-

tract, the patient, the physician and the surgeon. If three parties are perfectly satisfied I cannot see how a fourth party can, in any way, properly concern himself in the transaction.

I believe that this method is both fair and honest and I intend to practice it as long as the attending physician wishes me to.

On the other hand, I wish to state that I do not advocate the secret division of fees in any way or in any form. Moreover, I wish to state that I have never personally practiced this method of dividing fees without the patient's knowledge. Neither have I dressed up the physician, armed him with a sponge and let him stand beside me while I operate and then secretly pay him as an assistant. Nor have I employed any of the similar subterfuges so much in vogue.

My method is performed absolutely in the open and my belief is that the more general use of the joint bill would simplify many of our difficulties and differences, and I wish and intend to advocate it as much as possible.

Inasmuch as I have been misunderstood by some of my colleagues, I would appreciate it very much if you will publish this letter in the next issue of THE INDIANA STATE JOURNAL.

Sincerely yours,

J. V. REED.

One of the most obvious short-comings of Dr. Reed's letter is his declaration that his "method is performed absolutely in the open," and yet in his article* he cites an instance in his experience wherein, after the patient had become thoroughly acquainted with the facts, decided unpleasantness arose and he himself suggested that all would have been happy and satisfied had the division been made more secretly.

In the article referred to, Dr. Reed attempts to liken the situation in the medical and legal fraternities and endeavors to establish the fact that the division of fees is considered a legitimate procedure in legal practice. With this we beg to differ, and have for our authority the opinions of some of the most ethical among the legal profession in our community. We are informed by such members of the legal profession that their clients are usually rendered separate bills for the services of the various attorneys employed in handling the case, and no attempt is made to conceal from the client the exact amounts charged by the individual attorneys.

Again, as the fourth reason ascribed by Dr. Reed as being responsible for this position of the legal profession, he remarks: "An attorney who has a case referred to him not only feels com-

plimented that a colleague has chosen him to do the work, but he also has the nerve to say that he feels an obligation to the man who sends him business, and, therefore, takes pleasure in giving him part of the fee as an *honorarium*." (Italics ours.) We believe that this expresses the crux of the whole matter, namely, that in reality the pot allotted to the referring physician is given, not as an amount conceived by the surgeon to have been justly earned from him by the referring physician, but rather as a perquisite which will encourage him to come again.

If, indeed, the presence of the referring physician at the operation is demanded by the vicissitudes of the operation or by the patient, and if in his surgical lying-in period the patient needs or is desirous of the care of his family physician, there can be no question but that any right-minded individual would be willing to pay for such service. In such instance no right-thinking surgeon can believe that it is from him rather than the patient that the physician has earned his compensation.

Regarding the attempt to dismiss the subject of the joint bill and the three parties to the contract as all being perfectly satisfied, the already-cited instance in Dr. Reed's experience is *prima facie* evidence that such is not always the case. In other words, when each of these three parties, including the patient, is made to understand thoroughly the various parts played by each one of the said parties, then it is admitted that trouble arises.

An article of this sort emanating from a competent young man is most regrettable, but still more so is a lame excuse at white-washing it in the form of a subsequent letter. Naturally, the brunt of this fight will, for a while, fall on the younger men not yet established in their profession, and it is to these particularly that we would appeal to hold out in the fight for what is right and what should in the end triumph. A battle won without sacrifice is perhaps little worth the fighting, and there is small credit due the man who deserts the camp of his conscience for the one that has pricked his pocket-book.

INDIANAPOLIS, May 14, 1913.

To the Editor:—My views on fee-splitting might be expressed as follows:

Fee-splitting: The illegitimate offspring of professional courtesy to which the once popular ballad, "More to be Pitied than Censured," can well be applied. I hear many excuses for it, but no reasons. Its existence is deplorable—its elimination necessary.

JOHN R. NEWCOMB.

* Indianapolis Medical Journal, March, 1913, pp. 94-97.

INDIANAPOLIS.

To the Editor:—It certainly is a bit humiliating to think that we are asked to discuss seriously the question as to *whether we shall be honest or not*. We all know perfectly well that any settlement which is made for professional services, in the presence of the man who pays the money is a *right settlement*, and that any settlement which could not be so made is a *wrong settlement*.

I certainly am opposed to any form of fee division whatever.

Very truly yours,
O. G. PFAFF.

INDIANAPOLIS.

To the Editor:—I am not in favor of fee-dividing as generally known, but believe that the laborer is worthy of his hire and an equitable fee should be given him with full knowledge of the patient.

Sincerely yours,
F. W. FOXWORTHY.

INDIANAPOLIS.

To the Editor:—I am opposed to the practice of fee-splitting.

Yours truly,
DAVID ROSS.

INDIANAPOLIS.

To the Editor:—The term "Division of Fees" is such a broad one that it is impossible for me to answer it "yes" or "no." I am very much against this practice as it is used among some of the unscrupulous members of the profession. The rendering of a joint bill is considered by some as "fee-splitting." However, I have practiced this and have found it satisfactory to the patient, to the physician and myself.

Sincerely yours,
JEWETT V. REED.

PLYMOUTH.

To the Editor:—Please enroll my name among those who are opposed to giving or accepting a division of the fee in referred cases.

I have never given nor accepted a part of the fee and consider it unprofessional to do so.

Very truly,
S. C. LORING.

MUNCIE.

To the Editor:—I can scarcely conceive of a case where the attending physician and a consulting or operating physician should divide a fee.

Each should receive a fair and proper fee. No physician should be ashamed to ask and receive a compensation for his services. If it is a case of charity, help the poor and honor your calling. Look your patient squarely in the face and name your fee.

Sincerely,
G. W. H. KEMPER.

INDIANAPOLIS.

To the Editor:—I wish to state emphatically that I am against the practice of fee-dividing. I am in favor of county and state associations adopting resolutions against fee-dividing similar to the resolution adopted by the New York Academy of medicine, Oct. 5, 1911, which is as follows:

"*Resolved*, That the secret division of a fee, or fees, with any person, or persons, who may be instrumental in influencing a patient, or patients, to apply for operative care or professional advice, is unworthy of any member of the medical profession.

"*Resolved*, That if such a division of fee is made by a member of the New York Academy of Medicine it should be counted as of sufficient ground for the expulsion of the member.

"*Resolved*, That the Council considers it its duty to investigate charges against members made on the basis of such division of fee, and on receipt of proof of offense the Council may either permit the resignation of the person or expel him from the Academy."

Following the example of the Medical Society of the State of New York, the Indiana State Medical Association, through its Council, or one of the committees, should make the following recommendation:

"We recommend to county societies that it is essential for the dignity of the profession and welfare of the public that every possible effort be made to enforce the section of the Principles of Ethics of the American Medical Association that relates to the giving or receiving of commissions for recommending patients requiring general or special treatment or surgical operations. The Indiana State Medical Association will heartily cooperate in any way possible with the county societies in the enforcement of these Principles of Ethics."

I am glad to see THE JOURNAL take up this subject, and trust that you will be influential in having either the state association or county societies take some action regarding this important subject.

Yours very truly,
DANIEL W. LAYMAN,
Secretary, Seventh District Medical Society.

RICHMOND.

To the Editor:—I am decidedly opposed to fee-splitting and do not hesitate to so advise my patients. I am glad to see an energetic movement against the practice.

Yours truly,

F. W. KRUEGER.

INDIANAPOLIS.

To the Editor:—I am glad to say that I have been and continue to be against fee-dividing, both in principle and in practice.

When there is a real division of services there is no reason for secrecy. Whether the payment be in one check or two checks there seems to me no legitimate excuse for any arrangement not thoroughly understood by all concerned.

WM. S. TOMLIN.

LAFAYETTE.

To the Editor:—After writing at considerable length on the subject of fee-division, I have abbreviated my thoughts to the following:

While there is undoubtedly a something fundamental or basic that is not right in the professional relations existing between the patient, the general practitioner and the specialist, for which I have no remedy, I am opposed to the clandestine division of fees as remedy.

Without trying to cover the subject at all, I will say that I am opposed to fee division primarily because it is morally and ethically wrong, and secondarily because it is not good business. Business that I have to buy may soon go to some higher bidder. Business that comes to me on account of my intrinsic worth will stay with me as long as I am worthy of the confidence.

Sincerely yours,

FRANK S. CROCKETT.

EVANSVILLE.

To the Editor:—Fee-splitting is pernicious and I am opposed to it.

Very truly yours,

A. M. HAYDEN.

ELKHART.

To the Editor:—To my mind the discussion of fee-splitting carried on in THE JOURNAL, to say the least, is ill-advised. It "gets us nowhere" and only furnishes ammunition to the enemies of the profession. There are two sides to this question. Fee-splitting is not necessarily wrong, and common sense smiles at statements to the effect that "splitting fees degrades the participants and defrauds the patients." Such dogmatic statements have no weight with thinking men and tend to confusion rather than to the solution of

this vexing problem. I am an advocate of a single fee to all concerned, for experience tells me that it is a safe and wise procedure in honest hands. Participation in this form of fee-splitting does not necessarily mean sandbagging, stealing or highway robbery. It can be done above board and without farming out the patient to the highest bidder. Should I have occasion to call in Dr. Porter to operate on a patient of mine, I should first consult him as to the value of the combined services of operator, assistant and anesthetist, and then name that amount as a single fee, which I should collect and divide according to previous agreement. There could be no harm in this arrangement, providing the patient gets as much as he pays for. [And if Dr. Porter or any other surgeon does not agree to your terms may we not assume that you will go on a shopping tour to secure the one who accepts your terms—perhaps the highest bidder?—EDITOR.]

If we must discuss this question let us do it in a sane, sensible and intelligent manner as becomes professional gentlemen. Let us stop this unreasonable vilification which makes us the laughing stock of the commonwealth, and engage in a sober-minded discussion of the question. First of all, let someone define fee-splitting; then its various causes should be determined and its effects on the practice of medicine; and this followed by suggestions of its rational treatment. Instead of dividing ourselves into hostile camps, as has been suggested, let us get together—our motto, "With charity for all and malice toward none."

Respectfully submitted,

E. M. HOOVER.

LINTON.

To the Editor:—I note with a great deal of interest the discussion in THE JOURNAL of fee-division or fee-splitting. I also notice an editorial on page 222, in which it is said there were three sides to the practice: (1) The surgeons—"to get the fee"; (2) the physicians—"graft"; (3) the patient—"stung."

Did it ever occur to you that in the life of an honest, honorable physician there is no such a word as graft? Let us eliminate that word from our vocabulary, we don't need it in our business. Do you ever stop to think that in a case referred to a surgeon, the physician has probably cared for that patient for months, and at the time of operation the patient owes the physician a large fee; that perhaps all the money the patient can raise goes to the surgeon for operating, and the patient is sent back on the home physician's hands after a so-called successful operation with a recurrence, with adhesions, or to become a chronic, and that the local physician must care for such patients

cither without hope of collecting, or wait many long months for his fee, perhaps giving up half of it in order to collect anything at all?

This is actually happening every day. Do you see where the physician has any graft in such a case?

I note that the first to squeal is not the under-paid physician. Ah, no! The most forcibly expressed opinions against fee division come from the surgeons, some of whose articles I have read with at least a twinkle in my eye. Very well. First allow me to say that I am in hearty accord with them so far. It is a pernicious practice, and this discussion will do a world of good. It should open up a good many musty old practices of the stone age.

Get after the surgeon. If the surgeon can do a major operation for \$150 and give the referring physician \$50 of the fee, then he can do the same operation for \$100, leaving the patient \$50 to pay other debts.

Understand me, I am no fee-cutter, either. I am called a "high-priced doctor," and believe that one should charge in ratio to what he produces in results. The best builder is he whose building stands longest. The best physician or surgeon is he who, with an average practice, buries the fewest patients. I do say, however, that the surgeon should bring his fee down to a point where the patient will not be compelled to use all the money he has in hand, borrow all he can from his friends, his lodge and his union, then give a mortgage on his furniture, asking his home physician to wait for his fee already earned in storm and darkness, until the borrowed money is paid back to friends, the mortgage lifted, the grocer paid for food furnished the family while he was unable to work, the rent paid and the winter's supply of fuel bought.

Put it on a live and let live basis. Then carry this discussion further—go after the legislature for a law making physicians' and surgeons' attention labor. There is just as much dignity about labor honestly performed as there is in the practice of medicine, or surgery and you can collect for labor when many times you cannot collect for "service" or "attention."

Sincerely,

A. T. CUSTER.

LINTON.

To the Editor:—Since writing you yesterday, I found the enclosed in the *Indianapolis News*.

I suppose had there been a fee-splitting surgeon in sight this case could not possibly have been confined to a weak heart. Sincerely,

A. T. CUSTER.

IN THAT CASE

[*Chicago Record-Herald*]

"Tell me, candidly, doctor," he said after he had followed the physician out into the hall, "is there anything really the matter with my wife, or does she merely imagine that she's ill?"

"She has a weak heart and is likely to develop a case of appendicitis."

"Good heavens! I couldn't pay for an operation."

"In that case I'll try to keep the trouble confined to a weak heart."

VINCENNES.

To the Editor:—You will please add my name to the list of non-fee-splitters.

Why not get after the fee-taker, for he who demands fee-division is a more contemptible criminal than he who yields to the demand?

Truly yours,

A. B. KNAPP.

CAMBRIDGE CITY.

To the Editor:—In the May issue of THE JOURNAL, under Editorial Items, I have read the following concerning fee-splitting: "Those who refuse to be placed on record will stand in the attitude of being either ashamed or afraid to uphold their conscientious beliefs." As I don't care to be in either class, I will submit my ideas upon the subject. Personally, I have never asked from any one practicing a specialty, the splitting of a fee, nor has any one ever made such a generous offer to me. Never have I heard a physician say that he had received any portion of a fee paid to a specialist. Quite recently a very distinguished American citizen has well said, "Few things are now done as ten years ago." How fittingly true is this of medicine. Modern medicine is making wonderful strides. Specialists in the various branches of the profession abound, both on our right and on our left. I sometimes have had a longing to be one of them. Modern things in medicine are developing so rapidly, that it requires an ingenious sort of mind to grasp them. Among these we hear of fee-splitting, a term probably originating with some specialist. It has been my good fortune to become acquainted with a considerable number of medical men belonging to this class of the profession, many of whom are excellent men of splendid professional attainments, skillful operators, with high ethical aspirations, self-sacrificing, sometimes devoting their time for little or no financial

reward. But as a rule, the general practitioner of medicine is too frequently underpaid, and sometimes paid nothing for the cases he takes to the specialist. This is no fault of the specialist, nor, in most cases, is it the fault of the home physician. More frequently it is due to dishonesty upon the part of the patients, from a large majority of whom nothing can be collected by law. The patient being so well acquainted with the home physician, probably already in debt to him, does not hesitate to incur an additional obligation. The surgeon being a stranger, and asking a much larger fee, is more apt to be paid. The local physician has his full share of the responsibility in getting the patient to the operator in time, in making a diagnosis that will not be discreditable and in selecting an operator that will restore the patient to health. Again, it is not an infrequent occurrence that the local physician exhibits considerable financial skill in aiding the specialist to secure his fee.

In event of an operation proving unsuccessful, the family physician in his circumscribed field of labor, does not fail to receive his full share of censure, which sometimes is far-reaching. I have known cases where the home physician sacrificed much time and money, receiving nothing in return, while the specialist was paid a handsome fee. Permit me to cite a case with the facts of which I am most familiar. In this instance the physician had made considerable sacrifice, even in a financial way, that an operation might be successful; and further, was an assistant to the surgeon whom he selected, and to whom this successful operation proved very helpful in after-life. The local physician insisted that the surgeon be paid first, and he was paid. The patient was restored to health and was enabled to follow a remunerative occupation, but he absolutely would not pay the home doctor one cent.

In conclusion, it seems to me that with a dishonest class of people to deal with, fee-splitting, either with or without their knowledge, would be perfectly justifiable. Dealing with people who are responsible financially and reasonably honest, I see no need for such procedure.

I am inclined to believe that, until our State Society is called upon by those interested to make expulsion the penalty for those who indulge in this business, which action now seems probable, the specialist will continue to lose more sleep than the general practitioner.

J. N. STUDY.

DR. BOBBS' ARTICLE ON LITHOTOMY; A CORRECTION

MUNCIE, IND., June 1, 1913.

To the Editor—In *THE JOURNAL* for May, 1913, p. 218, appears an article copied from the *Indianapolis Star*, in which the statement is made that Dr. Bobbs' article on "Lithotomy of the Gall-Bladder," published in the *Transactions of the Indiana State Medical Society* for 1868, "slumbered for more than thirty years, and was first reprinted in *THE INDIANA MEDICAL JOURNAL* in October, 1899."

At the session of the Indiana State Medical Society, held in Indianapolis in May, 1879, I read an article entitled, "Affections of the Gall-Bladder Tending to Result in Cutaneous Biliary Fistula." In this article I called attention to, and quoted from, Dr. Bobbs' paper. See *Transactions* for 1879, p. 131. The fact is that the article of Dr. Bobbs had only "slumbered" for eleven years when I called the attention of the medical world to this remarkable paper and operation. My paper resurrected Dr. Bobbs' paper.

G. W. H. KEMPER, M.D.

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

The following is a list of those who have paid Association dues between April 1 and June 1, 1913. Errors in name or address should be reported to Secretary Combs, giving number of the membership card in order to facilitate prompt detection of the error on the membership records. This list as published is included on the mailing list of *THE JOURNAL*, and any member whose name appears on this list and who does not receive his *JOURNAL* is requested to write for a duplicate copy:

| NAME AND ADDRESS | COUNTY SOCIETY |
|--|----------------|
| Raymond Butler, Beech Grove..... | Marion |
| C. S. Wood, Eli Lilly & Co., Indianapolis..... | Marion |
| Jno. H. Bull, 1222 E. 13th St., Indianapolis.... | Marion |
| J. A. Clevenger, Garrett..... | De Kalb |
| B. A. Houser, Wabash..... | Wabash |
| S. G. Jump, Selma..... | Delaware |
| W. F. Byers, Lafayette..... | Tippicanoe |
| T. J. Clutter, Atwood..... | Kosciusko |
| C. E. Nusbaum, Bremen..... | Marshall |
| L. L. Quick, New Waverly..... | Cass |
| B. H. Landes, Logansport..... | Cass |
| W. Peck, Frankton..... | Madison |
| A. J. Kesler, Ft. Wayne..... | Allen |
| Geo. Studer, Ft. Wayne..... | Allen |
| B. Frank Wray, Camden..... | Carroll |
| J. W. Ricketts, 3201 Central Ave., Indianapolis | Marion |
| S. A. Johnston, Willoughby Bldg., Indianapolis | Marion |
| A. J. Schneider, 1664 S. Meridian, Indianapolis | Marion |

| | |
|---|------------|
| R. J. Kemper, Cor. N. Y. & Noble Sts., Indianapolis | Marion |
| Jacob Buehler, 206 E. McCarty, Indianapolis.. | Marion |
| C. F. Voyles, 803 Odd Fellows' Bldg., Indianapolis | Marion |
| I. E. Wells, Marshall | Parke |
| W. P. Laue, Gary | Lake |
| D. A. Cox, Howell | Vanderburg |
| C. H. English, Ft. Wayne | Allen |
| J. T. Turner, Bloomington | Monroe |
| A. F. Gugsell, Jasper | Dubois |
| Carl Habich, Cor. Blake & Michigan Indianapolis | Marion |
| W. E. Tinney, Hume-Mansur Bldg., Indianapolis | Marion |
| Clarence Lucas, 430 W. North St., Indianapolis | Marion |
| E. H. Myers, South Bend | St. Joseph |
| Frank N. Foster, New Carlisle | St. Joseph |
| C. D. Schurtz, Alexandria | Madison |
| F. M. Payne, Louisville, Ky. | Gibson |
| E. L. Sigmon, New Albany | Floyd |
| A. S. Neeley, New Albany | Floyd |
| B. E. Chambers, Lyons | Greene |
| E. B. Chenowith, Nineveh | Johnson |
| D. R. Goode, Greenwood R. R. | Johnson |
| P. L. Mull, Oldenburg | Franklin |
| J. E. Bowers, New Haven | Allen |
| M. L. Ploughe, Elwood | Madison |
| H. B. Hayward, Hammond | Lake |
| W. H. Kennedy, Shelbyville | Shelby |
| A. G. Grubb, Mongo | La Grange |
| G. R. Leonard, South Milford | La Grange |
| Wm. E. Lybrook, Young America | Cass |
| J. E. Elliott, Terre Haute | Vigo |
| C. R. Labier, Terre Haute | Vigo |
| S. D. Wier, Terre Haute | Vigo |
| D. W. Hebble, North Terre Haute | Vigo |
| J. A. Frisz, Terre Haute | Vigo |
| L. S. Taylor, Stanley | Warriek |
| U. G. Powers, Albany | Delaware |
| J. V. Nelson, Logansport | Cass |
| S. P. Hoffmann, Decatur | Adams |
| A. L. Kane, Ft. Wayne | Allen |
| Clara Faulkner, Hobart | Lake |
| A. A. Washburn, Clinton | Parke |
| Henry E. Washburn, Clinton | Parke |
| O. A. Newhouse, Montezuma | Parke |
| R. C. Beeler, Hume-Mansur Bldg., Indianapolis | Marion |
| Fletcher Hodges, 2 W. New York St., Indianapolis | Marion |
| W. B. McDonald, New Augusta, Ind. | Marion |
| J. A. MacDonald, Newton Claypool Bldg., Indianapolis | Marion |
| J. M. Cunningham, Willoughby Bldg., Indianapolis | Marion |
| H. W. Furniss, 132 W. New York St., Indianapolis | Marion |
| J. H. Ford, Newton Claypool Bldg., Indianapolis | Marion |
| R. E. Repass, 150 W. 38th St., Indianapolis.. | Marion |
| L. O. Carson, New Augusta, Ind. | Marion |
| F. E. Radcliffe, Bourbon | Marshall |
| E. K. Pfaff, Mooresville | Morgan |
| Fleetwood Sale, Dillsboro | Dearborn |
| Sullivan Holmes, Aurora | Dearborn |
| J. D. Priece, Wanatah | La Porte |
| S. W. Hooke, Wanatah | La Porte |
| F. F. Thompson, East Haven | Wayne |
| F. C. Hershey, Carmel | Hamilton |
| R. W. Brookie, Converse | Miami |
| C. R. Bassler, Elkhart | Elkhart |
| H. M. McCracken, Argos | Marshall |
| Frank L. Robbins, Carlisle | Sullivan |
| A. S. Newell, Converse | Miami |

INDIANAPOLIS MEDICAL SOCIETY

May 1, 1913

Place, Pathological Institute, Central Hospital Insane. Members present, twenty-five.

The meeting was called to order by Dr. C. E. Ferguson, at 8:30 p. m. Dr. Ferguson, who has just returned from a trip abroad, received a warm ovation. In the absence of Dr. A. E. Guedel, Dr. Will Shimer was appointed secretary pro tem.

Dr. A. E. Sterne conducted a most interesting and instructive clinic in which he discussed some of the newer laboratory findings in syphilis of brain and spinal cord and discussed causally some of the newer developments in psychiatry.

Cases presented and discussed by Dr. Sterne were:

Case 1.—One of Erb's spastic paraplegia inferior. Infected with syphilis seventeen years ago. Date of earliest symptoms fourteen years ago. Lesion probably in upper lumbar or lower dorsal region involving chiefly motor tracts of cord, lower reflex arch and posterior fibers not involved. Wassermann test of blood-negative. Wassermann test of cerebrospinal fluid plus 3, or 75 per cent. positive. Lymphocytes of cerebrospinal fluid not increased. Globulin content cerebrospinal fluid not increased. Fehling's reaction positive. Vigorous antisyphilitic treatment has not alleviated the symptoms.

Case 2.—Erb's spastic paraplegia inferior. Patient in hospital three years. Patient gave classical symptoms of upper motor neuron involvement. Wassermann test of blood plus 1, or 25 per cent. positive. Wassermann test of cerebrospinal fluid plus 4, or 100 per cent. positive. Globulin content of cerebrospinal fluid not increased. Fehling's reaction positive. No increase of lymphocytes.

Case 3.—Postanterior poliomyelitis paralysis of right leg. This case was presented to show the difference between upper and lower motor-neuron involvement. Right leg atrophied. All reflexes deep and superficial gone.

Case 4.—Huntington's chorea. Female, aged 46. Duration of present condition eleven years. Mother and two aunts also had Huntington's chorea. Mother and one uncle insane. Patient has had thirteen children. Huntington's chorea occurs in families and certain regions, e. g., Western Pennsylvania and Eastern Ohio. Lesion seems to be due to a pathologic condition of cortical cells of brain. Huntington's chorea invariably ends in dementia. It resembles paralysis agitans in aged and chorea in children but is a much more serious disease. It is somewhat infrequent, only two cases being in the hospital now.

Case 5.—Hysterical insanity. Female, aged 35. In hospital eight years ago for one year and one month. Left hospital and was well for six years living normally with her husband and children. Psychosis dates from an induced abortion: says she has been unhappy ever since. Thinks she is everlastingly damned and has attempted suicide in ludicrous manner. Now has two living children. Present condition due to husband going off with another woman. Patient very emotional at times, at other times very morose and melancholy. Dr. Sterne discussed Freud's theory concerning these psychoses and said that remarkable results seem to have been attained in various psychopathic institutes working on this theory but that the neurologists very correctly still cling to the idea that all psychoses had a physical basis.

Case 6.—General paresis. Female, aged 42. Has been in hospital three years. One week ago husband died in hospital of parietic dementia. Patient had usual symptoms of general paresis. Three doses of salvarsan intravenously have been given, pupils now react to light and accommodation and headache is gone. Patient seems to be better orientated, prognosis, encouraging. Wassermann test cerebrospinal fluid plus 4, or 100 per cent. positive. Increased lymphocytosis of spinal fluid. No increase of globulin in cerebrospinal fluid. Dr. Sterne said that in a few of these cases neosalvarsan had been injected intravenously and after one hour 10 c.cm. of blood withdrawn and allowed to stand over night at 56 C. In the morning a spinal puncture was made and the patient's blood-serum removed twenty-four hours previously, to which a small amount of salvarsan may be added, is injected intraspinally. Dr. Sterne believes that straight salvarsan in normal salt solution might be injected intraspinally without danger. Thus far this method has not been attempted.

Case 7.—Hemiplegia. Male. Due to syphilis.

Case 8.—Hemiparetic. Male. Three injections of salvarsan, no appreciable improvement. Before injection Wassermann test, blood and cerebrospinal fluid plus 4, or 100 per cent. positive. No increase of globulin or lymphocytes.

Dr. Max Bar showed two very interesting brains:

Brain 1.—Gradual hemorrhage into the internal capsule. (Duration one month.) Patient, male, aged 45 years. Patient died of interstitial nephritis. Brain condition very difficult to diagnose before death.

Brain 2.—Brain from male, aged 24. Multiple gliomatous tumor of cerebellum: Each tumor was distinct and seemed to have a separate origin. Very few tumors of the cerebellum of this kind are reported in medical literature. Patient had previously been shown to the medical society. Intracerebral pressure was very high and patient's gait was very ataxic with marked incoordination. Condition hard to diagnose before death as patient was alcoholic, syphilitic and a degenerate. Internal hydrocephalus with some sort of an involvement of cerebellum was provisional diagnosis.

WILL SHIMER, Secretary pro tem.

Meeting May 5, 1913

Meeting called to order by Dr. J. A. Pfaff, vice-president. Number present, fifty-five.

Application for first reading, Dr. Harry A. Shimp; for second reading, Dr. Jno. A. Stalker.

Dr. Potter reported for committee on relief of physician flood sufferers. This report in detail is filed under this date with records of society.

The council reported on question of fee-splitting. This report with resolutions is filed with records of council.

The report with resolutions and recommendations was on a motion of Dr. T. B. Eastman, seconded by Dr. T. B. Noble.

Dr. Kimberlin reported a misunderstanding which was leading to the formation of two separate parties to the meeting of the A. M. A. There should be but one party. They should either combine or our party surrender to plans of other.

Dr. Thomas C. Kennedy reported a case of ovarian cyst which was unusual. Girl, aged 3 years, 11 months and 1 day, taken suddenly and while apparently in

good health with pain in abdomen. Mother found swelling, nausea and vomiting. Vomiting stopped but nausea persisted. Efforts to move bowels without result. Diagnosis intestinal obstruction. Operation decided the next day. Operation disclosed a cyst of the left ovary the size of goose egg. Uneventful recovery. Case interesting because of the age of the patient.

Adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of May 13, 1913

Meeting called to order by vice-president, J. A. Pfaff. Number present, sixty-five.

Reading of the minutes of the last meeting dispensed with. The application of Dr. G. L. Guthrie was read for the second time.

Paper of evening was read by Dr. E. S. Bullock of Silver City, N. Mex. Subject, "Compression of the Luugs in Tuberculosis."

Dr. Bullock believes firmly in the benefit to be derived from this form of treatment and although he has had much success with method he confined his case reports to his failures in order that the difficulties of the method be emphasized. Nine interesting cases were reported in his paper in which some unfavorable results or no result at all followed. He would apply the method in selected cases which were apparently not doing well under other treatment. Too many successful cases are reported and the unsuccessful ones forgotten. All should be reported. The method is of value in many cases in which there would be otherwise no hope of benefiting by any other treatment. The method as we know it to-day is not of value in incipient cases. Reserve compression for steadily advancing cases.

DISCUSSION

DR. ALFRED HENRY: It is time for the average physician to stop showing the white feather in the case of tuberculosis and try to do something for it. Many patients are sent West because the physician does not want to treat condition. If pulmonary compression helps in the least it is a good thing to practice. The occasional case benefited repays us for our efforts with the method. We need to know more of physiological action of treatment. Some say the rest of the lung is the source of benefit. Some say anemia, some hyperemia; the truth of the matter is we do not know.

DR. THEODORE POTTER: Occurrence of spontaneous effusion often marks arrest of an apparently active tuberculosis. It is on this fact that compression is based. Other substances than nitrogen may be used: sterile liquid petrolatum, salt solution, sterile air. Salt solution is good to replace spontaneous effusion that is being too early absorbed. Pressure must be maintained. One compression will do no good. Patient must be kept quiet.

DR. F. B. WYNN: Compression can be made by surgical shortening of ribs of affected side. Reported case treated in this manner which showed improvement. Any measure which produces pulmonary rest is efficacious. We must be conservative in aspirating pleural effusions. Many times this does much harm when Nature is fighting to do good. Why not compress incipient cases? It is in these cases that Nature compresses with the spontaneous effusion. In the

advanced cases there are nearly always adhesions which make compression difficult or impossible.

DR. SCHORTEL, Albuquerque, N. Mex., was present and was invited to discuss the paper. More optimistic, has secured many good results and has had little trouble. Danger is not great. Chance of doing good favorable. Start with 200 or 300 c.c. and gradually increase this. Applies the method in third-stage cases. The question is: "What do we do in the lung when we compress?" When both lungs are affected compression of one often causes an improvement in the other while theoretically the reverse would be true. Pressure must be controlled and operator should know how much pressure is being made at all times.

DR. W. T. S. DODDS: Compression is a fad which will soon die out. It is apparently of value only in advanced cases and these die no matter what you do for them. Compression adds strain to an already diseased myocardium. Operative risk too grave.

DR. A. C. KIMBERLIN: Failures often due to poor technic. Compressed lung is not a collapsed lung. Atelectasis by compression and atelectasis by exhaustion are two different things. The whole question is still a bit too hazy. Pleural effusions relatively few as compared to the vast number of cases of pulmonary T. B. Pneumonic process is likely to follow finger exploration. Let us know more of the physiology and the pathology of the affair.

DR. BULLOCK (closing): We are trying to conserve life and this is one method of accomplishing this. Paper presented only unfavorable cases. However, my successful cases, and many of them were brilliant successes, far outnumber my failures. I do not want to be misunderstood. I am for the method and for it strong.

Meeting of May 29, 1913

Meeting called to order by Dr. C. E. Furguson, president. Number present, fifty-five.

DR. A. W. BRAYTON stated that meeting last week at the Central Hospital for the Insane with the presentation of a group of cases representing syphilitic nervous and mental affections had a high order of merit. No such series has ever before been presented to the society.

Commends the relationship of the hospital to the college and the medical society. It is one which makes possible a better and closer study and knowledge of nervous and mental diseases than could be otherwise attained.

The first paper of the evening was read by Dr. Will Shimer. Subject, "Hodgkin's Disease and Pseudo-leukemia."

Classification of diseases characterized by enlargement of lymphatic glands, of the spleen, or of these structures together, is a problem of great difficulty, and frequently it is only by examination of the blood that such cases can be differentiated from one another. Thus, in their clinical history and naked-eye morbid anatomy, some cases of lymphadenoma or Hodgkin's disease closely resemble leukemia, whilst in other respects they closely resemble chronic infective glandular overgrowths such as may occur in tuberculosis or syphilis. In other instances it is difficult to differentiate cases of lymphadenoma from true tumor formations such as lymphomas and lymphosarcomas; while splenic anemia form another group which must be differen-

tiated from them. Whether these conditions should be classed as morbid conditions of the blood, or as diseases of the lymphatic glands and spleen, is a debated subject, but many conditions formerly described and classified as primary blood-diseases, may now be regarded as manifestations of certain reactions in the blood-forming tissues produced by infective or other known or unknown origin.

The second paper was read by Dr. A. S. Jaeger. Subject, "Relation of Anesthetist to Surgeon and Patient."

The true dangers from anesthesia are not properly appreciated by patient and in many cases the surgeon. The anesthetist should be better compensated but he should also assume responsibility of anesthetic and the friends of the patient should be aware of the fact that he is responsible. The surgeon should not have to worry about anesthetic. Anesthetist should make a careful examination of patient before operation and consult with surgeon as to most suitable agent to employ. He should also remain in attendance on patient until all anesthetic sequelae have passed. During the course of operation he should be the surgeon's guide as to condition of patient. The anesthetist should make and collect his own fee dealing directly with the patient as do other attendants.

DISCUSSION

W. T. S. DODDS: The diagnosis of Hodgkin's disease is difficult. Splenomedullary leukemia, tuberculosis, syphilis, Hodgkin's all cause glandular enlargement. Pathology is indefinite.

BERNAYS KENNEDY: We are awakening to importance of a properly conducted anesthetic. Patients are beginning to inquire about their anesthetic and who is to administer it. Fees should be larger. Question of anesthesia is more hopeful.

DR. LAPEÑA: Hodgkin's disease is an entity and easy of diagnosis. It is a malignant lymphosarcoma.

DR. WYNN: Hodgkin's disease is one of the most difficult conditions that we have to diagnose. Different cases present different pathological conditions and in the same case at different times there is a distinct variation in microscopical findings. X-ray action is characteristic. Immediate and marked improvement at first. Later it does not seem to have as marked effect. Even with blood examination and all the methods that we have at hand to-day it is sometimes difficult to make a positive diagnosis.

DR. C. F. NEU: Nothnagel and Van Sutton in clinics admitted difficulty of diagnosis. They thought it was of sarcomatous nature.

DR. A. W. BRAYTON recalled some interesting cases of glandular enlargement which were presented to the society many years ago. At that time they were thought to be tubercular. The question in the x-ray application in these glandular cases is the possible hastening of death by causing a more rapid dissemination of toxins of condition.

DR. WYNN reported a case of lymphatic leukemia in which death was hastened by the use of x-ray.

DR. E. O. LINDENMUTH reported a series of eleven cases which he had treated with x-ray, with usual result: improvement at first with treatment seeming to be much less effective in recurrences.

DR. THEODORE POTTER discussed the peculiar febrile periods which sometimes accompany these

glandular conditions. A period of high fever for a few days or weeks and then a period of normal temperature with tolerably well feeling. Reported a case of lymphatic leukemia in which this character of temperature was marked.

DR. SHIMER (Closing): Pathologists are not agreed on the pathological conditions to be included in Hodgkin's disease, and pseudoleukemia; ethology also a point of dispute. Carnegie Dickson in his book on bone-marrow gives the most helpful presentation. He believes that these diseases are tissue reactions, having to do with immunity, to bacteriotoxins having specific affinity for lymphocyte-forming tissue in lymphatic leukemia, leukocyte-forming tissue in myelogenous leukemia, erythrocyte-forming tissue in anemias. Reactions are manifested by degenerate and embryonic as well as normal blood-cells in the blood-stream and in blood-forming organs in the various diseases of the blood-forming organs and blood.

DR. JAEGER (closing): Dr. Kennedy stated that this paper should have been written ten years ago because he appreciated the importance of anesthesia. The reforms, however, that this paper calls for, will be hard to bring about in ten years to come.

FOURTH COUNCILOR DISTRICT

The Fourth Councilor District Medical Society met in Columbus, May 29. The following program was presented: President's address, "The Doctor," Dr. L. B. Hill, Seymour; "Proper Methods of Examination of the Insane," Dr. C. C. Bitler, Madison; discussion by Dr. G. T. McCoy; "Infections of the Hand," Dr. G. E. Denny, Madison; discussion by Drs. G. G. Graessle and A. P. Roope; "Prophylaxis," Dr. D. W. Robertson, deputy; discussion by Dr. J. P. Ward; "Modern Therapeutics," Dr. A. G. Osterman, Seymour; discussion by Dr. C. F. Kercheval, and "The Good of the Society," Dr. W. H. Stemm.

Prof. Severance Burrage, president of the Indiana State Association for Study and Prevention of Tuberculosis, was a visitor and gave an excellent talk on the prevention of tuberculosis and care of the tubercular of the county. He especially urged organization of county societies and erection of county hospitals for their care. He contrasted the liberal expenditures for the care of small-pox patients with the meager allowance made for the care of tubercular patients. It was also brought out that the state is burdened with a large expense in caring for the orphans of tubercular parentage in addition to death losses.

Resolutions on the deaths of Drs. Charles Ryker, Scott Culbertson and Luther M. Davis, also Mrs. E. D. Freeman, were prepared and passed.

The invitation of the Jefferson County Medical Society to meet at Madison next year was accepted.

The following officers were elected: president, Dr. Will E. Thomas, Clarksburg, Decatur County; vice-president, Dr. J. R. Pate, Milan, Ripley County; secretary, Dr. F. C. Denny, Madison, Jefferson County; treasurer, Dr. Vincent Shepherd, Dupont, Jefferson County.

Sixty-seven physicians and twenty-six ladies were registered.

Following the scientific session a banquet was served. Adjourned. J. K. HAWES, Secretary.

FIFTH COUNCILOR DISTRICT

May 14, 1913

The sixth annual meeting of the Fifth District Medical Society was held May 8, in Terre Haute, at the Commercial Club rooms. In the absence of Dr. S. C. Darroch, president of the society, Dr. W. A. Gekler, Rockville, was chosen president pro tem. The House of Delegates reported the election of Dr. M. R. Combs, Terre Haute, president; Dr. W. A. Kekler, Rockville, first vice-president; Dr. W. H. Orr, Brazil, second vice-president, and Dr. G. C. Carpenter, Terre Haute, secretary-treasurer.

The scientific program consisted of paper, "Typhoid Fever," by Dr. L. C. Rentschler, Center Point; discussed by Drs. King and Mattox. "X-Ray and Its Dangers," by Dr. E. L. Larkins, Terre Haute; discussed by Drs. Weinstein, Jett, Luckett and Gekler. "Rupture of Uterus," case report, by Dr. A. H. Caffee, Terre Haute; discussed by Drs. Fink and Bunker. "Conservation in Pelvic Infection Outside the Uterus," by L. P. Luckett, Terre Haute; discussed by Drs. Weinstein, Combs and Kimberlin. "Observations in One Thousand Labor Cases," by J. B. Bastin, Fillmore; discussed by Drs. Larkins, Elliott and Mattox.

At 7 o'clock dinner was served at the Elks' Club with thirty-five members present. Dr. Kimberlin, president of the Indiana State Medical Association, gave a very interesting talk on "Fee-Splitting." Several members responded with more or less humorous talks at the request of the toastmaster for speeches. At 10:30 the society adjourned to meet the second Thursday in May, 1914, at Terre Haute.

R. L. WOODARD, Secretary.

THIRTEENTH COUNCILOR DISTRICT

The seventeenth semi-annual meeting of the Thirteenth District Medical Society was held at Goshen on May 7.

There was an interesting afternoon program followed by a talk by Dr. Corbus, Chicago, the lecture being illustrated by moving pictures. A banquet followed at Hotel Hascall.

The next meeting will be held in September, before that of the state association, the place to be selected later.

Adjourned.

C. N. HOWARD, Secretary.

DAVIESS COUNTY

The regular monthly meeting of the Daviess County Medical Society was held at the City Hall of Washington, Thursday evening, May 1. The meeting was called to order by Dr. Willeford at the request of President Clark. Nine members were present.

Dr. McPherson read a paper on "Infections of the Oxyuris Vermicularis and Ascaris Lumbricoides," and reported a very interesting case of oxyuris vermicularis, with the infection of the entire family and the family dog. The paper was discussed by Drs. Parr, Mitchell, Gers and Willeford, Dr. Willeford taking up the remarkable decrease in infections of oxyuris vermicularis, attributing the fall to less malaria, a better water-supply and better hygiene.

Dr. Wadsworth talked to us on the importance of a carbohydrate diet in convalescence, emphasizing the

mistake commonly made of attempting to feed a convalescent patient on the "starvation diet" of soup. He gave reports of cases on this line.

A change in our meeting night was discussed, but not acted on.

Adjourned.

ARTHUR A. RANG, Secretary.

DELAWARE COUNTY

A special meeting of the Delaware County Medical Society, to which the Federation of Teachers, the Ministerial Association and the various women's clubs were invited, was held in the Jackson Street Christian Church, Muncie, May 16.

Dr. David C. Peyton, superintendent of the Jeffersonville Reformatory, delivered a lecture dealing with the psychology of criminals in general, and his work at Jeffersonville in particular. Dr. Peyton said in part: The purpose of this lecture is to inspire the public with a desire to devote a part of their energies to a work which fundamentally concerns the future of our race. This is not a task for sentimentalists, but demands intelligent and sympathetic understanding. We are now far removed from the idea that a pound of punishment must be meted out for every pound of crime. We must understand that the human being is a dual organism. Society is responsible for the existence of the criminal and therefore owes him something. Generally speaking it has proved itself utterly incompetent and our institution at Jeffersonville, doing a research work not undertaken elsewhere in the civilized world, is trying to make up for some of the failures of society. Spiritual life is as susceptible to growth and wholesome influences as is physical. Young men or young women who go through life without inspiration, aspirations and dreams are failures.

My life at Jeffersonville has made an optimist of me. I have an advisory committee composed of nine inmates who constitute a competent council and are interested in the work. Confidence begets confidence; kindness begets kindness; just as surely as distrust begets distrust. Fifty per cent. of the men admitted are mentally defective, yet the state calls them criminals. Back of everything else is the influence of heredity; this in conjunction with the environment, regulates the individual status. Crime may be committed without violation of the law. Violation of the law might not be criminal. Crime is the indulgence of one's selfish desires without due regard to the ethics of society. It is natural for a boy to do the things he wants to do, therefore how important that his inclinations be correctly trained and guided. Crime, prostitution and pauperism all spring from the same root; all are perfect reactions from an abnormal condition; all are evidences of exactly the same defect. Fifteen per cent. of our patients are hopeless because of their serious defect. We are not able to place in their heads the gray matter that was left out.

We teach all trades in our school—education in its broad sense. We do that which enables the criminal to get a better knowledge of life and his duty to society, and to enable him to earn a livelihood. In dealing with these men we observe a motto which embraces three elements, kindness, justice and firmness. These men are just as much members of society as you or I, and our attempt is to so train them that when released they will not again offend. All things in life that are worth while are the result of evolu-

tionary changes. Society should understand its duty toward the offender. No man wants to be a criminal; crime is an expression of weakness.

To the school teachers Dr. Peyton said: The youngsters committed to your care are prepared to receive such impressions as you are prepared to give and these impressions will be reflected on the individual in after life. You are molders of human character. The basic principle involved in the production of the criminal and mentally incompetent is worthy of consideration, and the intelligent cooperation of the people of the state is solicited in behalf of these unfortunate young men.

Adjourned.

H. D. FAIR, Secretary.

ELKHART COUNTY MEDICAL ASSOCIATION

May 1, 1913

Meeting called to order at 8:30 by President Kuhn. Minutes of previous meeting read and approved. Motion made and carried that Dr. Spohn be selected as delegate to state meeting in September. Motion made and carried that secretary be instructed to write secretary of Kosciusko County Society relative to inviting the state meeting of next year to Winona.

"Ulcers of the Stomach and Duodenum" were considered in a paper by Dr. B. F. Kuhn, Elkhart. Three varieties: (1) simple erosions; (2) simple acute round ulcer, and (3) chronic, irregularly shaped ulcer (Mayo-Robson). The latter usually requires surgical treatment.

Etiology.—Cause is still unknown. Bernard's and Bavy's theories as to why the acid gastric juice does not digest the stomach wall. Weinland found mucosal cells of stomach and intestines to possess an antipeptic and antitryptic action. Schmidt's theory as to why some gastric mucous membranes are susceptible to ulcer—atony of muscles of stomach wall allows any abrasion to remain open and exposed to action of gastric juice. Virchow's embolism theory. Robson believes ulcers of stomach have a septic origin, especially oral sepsis. Turck was able to produce ulcer of stomach in dogs by feeding them filth containing colon bacilli. According to Friedenwald's cases, 30 per cent. had an excess of HCl, 23 per cent. showed hypochlorhydria and 46 per cent. a normal acid content. It is pointed out, however, that there may have been a hyperchlorhydria at the time ulcer formed. Pylorospasm accompanying ulcer, prevents free passage of gastric contents into duodenum and thereby increases quantity of acid as well as all other constituents of gastric juice. Four facts bring out important relation between hyperchlorhydria and gastric and duodenal ulcer: (1) rest of body, mind and digestive organs, known to lessen secretion of HCl, causes improvement in ulcer; (2) drugs which lessen hyperchlorhydria favor healing of ulcer; (3) bland diet which limits acid secretion aids in cure, and (4) anastomosis of stomach with bowel, bringing free drainage cures ulcer.

Symptoms and Diagnosis.—Observation of ulcer directly on operating-table has enhanced our knowledge of gastric ulcer. Moynihan has concluded that many cases thought to be functional hyperacidity have been really organic ulcers. Many ulcers are accompanied by a normal acid gastric content. Microscopically, large clumps of leukocytes with blood-cells indicated ulcerating surface. Stagnating contents with HCl, sarcines, yeasts and free nuclei point to pyloric stenosis. Vomiting found in 67 to 80 per cent. of cases.

Hematemesis present in 22.8 per cent. of Friedenwald's 1,000 cases. Tarry stools and occult blood-tests. Pain appears sometime after meals, two, three and four hours; pain is caused by empty stomach and relieved by taking food. The old idea that ingestion of food causes pain is erroneous. Graham bases his diagnosis of chronic surgical ulcers largely on four points: (1) periodicity of attacks extending over several years with intervals growing shorter; (2) the long time, five to twenty years, that symptoms have existed; (3) character of pain, and (4) ready control of all symptoms during an attack by giving food, alkalies, by irrigation and by vomiting.

X-ray is becoming more important as an aid in diagnosis.

Treatment.—Keynote is rest of body, mind and especially of stomach. Leube's limited and Lenhart's more liberal diet. Pavlov has shown conclusively that kind of food ingested determines character of gastric juice. To control hemorrhage, Mitchell of Belfast uses subcutaneous injection of normal horse-serum with success. Adrenalin well diluted and small doses of morphia are advisable. Ice does more harm than good. Perforation occurs in from 6.6 per cent. to 28.5 per cent. of all cases of gastric ulcer. Fatal in 95 per cent. of cases in absence of surgical treatment. Acute, subacute and chronic forms of perforation. Three conditions: acute poisoning, beginning pneumonia and acute dilatation of stomach must be ruled out in differential diagnosis. Immediate laparotomy, purse-string suture with minimum of manipulation, a suprapubic drain and Fowler's position. A gastro-enterostomy should be done also if patient's immediate condition will allow it.

Cases showing pyloric stenosis require surgical treatment. An early operation was that of divulsion of pylorus by introducing fingers through an opening into stomach. This was practiced by Loreta as early as 1883. Pyloroplasty was developed first by Heineke and Mikulicz working independently. Finney operation: its application is limited. Pylorotomy in hands of Billroth had mortality of 50 per cent. in six cases.

Gastro-enterostomy has undergone several periods in its evolution so that at present it is most successfully done posteriorly and with loop of jejunum as nearly vertical as possible (Mayo). Stomach and intestine are so united that bowel is not changed from its normal course downward at point where anastomosis is made. Regurgitant vomiting is the most aggravating complication.

The second paper on "Experimental Gastric Physiology and Its Relation to Surgery of Stomach," was presented by Dr. J. C. Fleming, Elkhart.

PAVLOV'S EXPERIMENTS ON DOGS

Pavlov demonstrated that secretion of digestive juices was excited by the mere thought, smell or taste of articles of food, and that this secretion was augmented by the act of swallowing. If disappointed in getting food, flow stopped. Secretion of gastric juice continued as long as food remained in stomach, and varied with kind of food ingested. For example, milk remained in stomach and caused gastric secretion two or three hours, starches three or four hours and meat six hours. Section of both vagi stopped secretion. Mechanical irritation of gastric mucosa caused very little or no secretion. Meat extracts, on the other hand, produced a copious flow of gastric juice. These bodies,

by their contact with the pylorus, induce the formation of a chemical substance or hormone (gastrin or gastric secretion) which has property of exciting activity of secretory glands in cardiac end of stomach. Fats and oils powerfully inhibit gastric secretion. This is probably the explanation of the beneficial action of olive oil in gastric ulcer.

Foregoing conclusions show the value in treatment of gastric ulcer, of a diet from which meat has been excluded. In such a diet there is a minimum to tax on stomach and by lessening gastric secretion it helps to overcome hyperchlorhydria which is nearly always an accompaniment of gastric ulcer at some time in its existence. Bitters, alkalies and acids, and alcohol preparations when introduced into stomach through a gastric fistula, caused no more secretion than water, their reputation being due to their action in the mouth, exciting gastric juice reflexly. Their action would be more beneficial if they were spat out. Bitters in pill form have no value as stomachics.

The stomach is a vertical reservoir with a well-marked angular ring separating it from horizontal and ascending tubular pyloric antrum. In other words, stomach is shape of letter J. As stomach contracts the pylorus becomes lowest portion. Peristaltic waves start at middle of cardiac reservoir and pass toward pylorus at the rate of about three per minute. When the chyme becomes sufficiently acid the pylorus opens and discharges contents into duodenum. It then remains closed until acid contents in duodenum become alkaline, when the pylorus again opens and so on until stomach is empty. Water runs out of pylorus almost as fast as it enters cardia. The greater the acidity of gastric contents, the longer pylorus remains closed, hence hyperchlorhydria and pylorospasm go hand in hand.

Stomach and intestines have no temperature or tactile sense.

EFFECT OF GASTROJEJUNOSTOMY

In animals with normal stomachs subjected to gastrojejunostomy food passes through the normal way and not through artificial stomach (Kelling, Cannon, Blake and others).

Clinically, in the majority of cases, there is either actually or potentially a certain degree of pyloric stenosis in those patients who are subjected to gastro-enterostomy, and fluoroscopic findings show that food passes both ways. There is some evidence to prove that if the pylorus remains patent, gastro-enterostomy opening will close and ulcer will recur. To prevent this some operators are combining gastro-enterostomy with pyloric occlusion in pyloric and duodenal ulcers. Some (Berg, Von Eiselberg, Kellogg and others) adopt it as the routine procedure. Others use it only occasionally or not at all.

The value of pyloric occlusion is still *sub judice*. No method short of complete division of pylorus with closure of both ends suffices permanently to occlude pylorus. Gastrojejunostomy without occlusion has been successful in a large majority of pyloric and duodenal ulcers, and as Wm. Mayo says: "If indications for gastrojejunostomy are clear, operation will be successful without it and if choice of operation has been bad, it will not be improved by closure of the pylorus." Chas. Mayo, in a personal communication in regard to the value of pyloric occlusion, says: "We do many more plastic operations in ulcer of stomach

and duodenum to maintain natural outlet and avoid gastro-enterostomy at distant points."

DR. J. A. WORK, JR., Elkhart: Work of the experimental surgeon affords a foundation for future surgery more stable than that of the past. Notable examples: Pavlov and Alexis Carrel. Stomach may be compared with the urinary bladder; rarely diseased of itself though giving rise to more complaints and receiving more unnecessary treatment than any other organ of the body. One-third of all gastric disturbances are due to general diseases: appendiceal dyscrasias, "innocent" gall-stones, pancreatitis, cardiac and renal insufficiency, arteriosclerosis, pernicious anemia, diseases of the nervous system, etc. (Mayo). Of the two functions of stomach, mechanical and chemical, the former is more important inasmuch as any obstruction to natural onward passage of food promptly gives rise to symptoms.

Another, one-third of all stomach complaints covered by three closely allied conditions: (1) atonic dilatation; (2) gastroparesis and (3) gastric neurosis. In these, again, the stomach is not the offender but rather an unstable nervous system and congenital physical defects are at fault.

Control of pylorus is vested in the duodenum and under certain circumstances in the derivatives of the midgut. Pylorospasm indicates organic lesions of some part of this tract. It is brought about by action of internal secretions (Starling's hormones) through sympathetic nervous system. Result of pylorospasm: indigestion, dyspepsia and gastric distress. Twenty per cent. more of stomach disorders belong to this class.

The meager 10 per cent. of all stomach conditions remaining makes up the total of cases where there is demonstrable disease in the stomach itself. Pyloric canal of Jönnesco is infrequent site of ulcer; pyloric vein; anemic spot; saddle ulcer; contact ulcer. Proximal duodenum physiologically is and should be considered a part of stomach. Average duration of symptoms in cases of ulcer operated on in Mayo clinic has been twelve years, seven months and some odd days. Probable cause of chronic gastric and duodenal ulcer (peptic ulcer) a specific gastrotrocin.

DR. C. W. HAYWOOD, Elkhart, showed x-ray-bismuth meal plates to prove the normal J-shape of stomach; demonstrated plates of stomachs prolapsed into pelvis, and one of a markedly contracted stomach with suspected ulcer.

DR. E. M. HOOVER, Elkhart: The old women who refer to their stomachs as being low in the abdomen are more exact than they know.

DR. G. W. SPOHN, Elkhart, discussed psychic relations of stomach conditions.

DR. J. A. WORK, SR., Elkhart, mentioned case operated on in which fundus of the stomach reached within 1½ inches of the pubis.

DR. B. F. KUHN, Elkhart (closing): Cannon and Blake brought out in their experiments what skiagraphs show: that walls of stomach contract up to meet amount of food in it. It has been shown that after gastrojejunostomy contents of stomach are propelled through pylorus as previous to operation. Big advantage attaches to the no-loop operation. Use of stomach tube to keep stomach contracted in cases of vicious vomiting.

Motion made and carried that the specially appointed committee be allowed to decide where the June picnic be held.

Adjourned. JAMES A. WORK, JR., Secretary.

KOSCIUSKO COUNTY

The regular meeting of the Kosciusko County Medical Society was held at the office of Dr. C. C. DuBois, May 27.

Dr. G. W. Spohn, Elkhart, was present and read a paper on "Tonsillectomy, Adenectomy and Who Should Operate." Discussion by Drs. Thomas, Yeum, Howard and Young.

Dr. Spohn examined a case of atypical adenoids, enlarged turbinates and tonsils and diseased septum. He also removed tonsils from one patient.

A letter from secretary of Elkhart County Medical Society was read recommending invitation of the state association to Winona for 1914 session. Motion carried that Kosciusko County Medical Society approved such arrangement.

Adjourned. C. C. Du Bois, Secretary pro tem.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held in Gary, May 8, fifteen members present. Minutes of April meeting read and approved.

Dr. Yarrington read a paper on "Medical Supervision of Schools." The specific objects of medical supervision of schools are:

1. The detection and correction of physical defects.
2. The detection and exclusion of parasitic and contagious diseases.
3. The maintenance of good hygienic and sanitary conditions about the schools.
4. The diagnosis and treatment of cases of defective mentality.
5. The correlation of medicine and pedagogy in order to produce the maximum of efficiency in the school system, with the preservation of health. These objects may be accomplished in several different ways. The rural school calls for methods different than those used in the city schools. Those cities having volunteer inspectors, and those in which the paid inspector spends but a few hours per week cannot obtain the results to be had where the school physician devotes his whole time to the work.

School nurses are an important adjunct, inasmuch as they are often able to have the defects corrected, where the physician is not so successful.

The essayist then took up the discussion of the Gary plan. There are two school physicians, one of each sex. Routine physical examinations are made, the pupils being stripped to the waist, and having the feet bared. These complete examinations are made each year and the result recorded on a special card. At the close of the year the defectives are again examined in order that the physician may see if the defects have been corrected. If the parents fail to take due notice of the report sent to them they are called in for consultation. The replies received vary from perfect cooperation to open rebellion. The writer suggests that there should be a fund for the purpose of caring for the children of those unable to pay.

The defects most commonly found are defective teeth, there being about 65 to 85 per cent. Defective vision, enlarged tonsils and adenoids follow in order. The latter are diagnosed chiefly by the voice and the

obstruction to breathing. Examining by inserting the finger in the nasopharynx is out of the question in school work. The tonsil question is an important one. The speaker believes that all tonsils do not demand removal. A child with slightly enlarged, ragged tonsils has more need for operation than a child with tonsils two or three times as large, but with no history of sore throat. Present statistics are, in a measure unreliable, showing a variation of from 5 to 80 per cent. in the same cases. The New York system in which the same children are examined separately by two examiners affords the most reliable means for estimating the percentage of defectives.

Orthopedic defects, round shoulders, spinal curvature and flat foot are recorded and corrective exercises given in the physical training department. In the control of contagious diseases the Gary plan is to have all children who have been absent from school report to the inspector before reentering. The Board of Health also makes daily reports to the school physicians. The teachers are instructed to send all suspicious cases to the office. In case of epidemics we deem it best to keep the pupils in school and make daily inspections of all the pupils in that room or building that have been exposed.

Special attention is given to the sanitation of the closets in the schools. Deodorants are condemned; the writer believes the best method is to see that the closets are kept clean. Chloronaptheum is used. Books are disinfected by heat and formalin in a double-walled tank with a temperature of 170 degrees, and with a humidity of 60 to 70 degrees. For sweeping a sawdust compound is used. The ventilation system provides 30 cubic feet of air per minute for each pupil, at a temperature of 68 degrees, with a humidity of 50 to 60 per cent. The mentally deficient are placed in an ungraded room, with a special instructor in charge. Adjustment of seats to fit the child is of great importance. The hours of play and the corrective exercises are to be taken into consideration. School physicians should endeavor to give instruction on bacteriology, hygiene and the care and feeding of infants.

This paper was discussed by Drs. Howat, G. W. Miller, Gibbs and DeLong.

Dr. Evans reported that some members had failed to remove their advertising cards from hotels, theater programs, etc., and moved that the matter be referred to the board of censors. Carried.

Adjourned.

E. M. SHANKLIN, Secretary.

MADISON COUNTY

The Madison County Medical Society met in regular session in Anderson, May 27, with eighteen members present. Minutes of previous meeting read and approved.

Dr. Charles read a paper on "Diphtheria-Carriers and Quarantine," reporting a case in which cultures from tonsils gave positive culture of *Bacillus diphtheriae* for a period of time covering 117 days. The longest time that quarantine is effective in any state is forty days.

Dr. Martindale reported a case of septic endometritis and use of mixed vaccine as a remedy. Was called to

see case ten days after abortion; patient had chills and fever for three or four days. Uterus thoroughly cleaned out and patient put on large doses of sodium salicylate and echinacea with no relief; temperature, 103. Then gave mixed vaccine. Temperature rose to 103 4/5 after first injection, to 104 after second and to 105 2/5 after third, but dropped to 100 following day and to normal the day following. Convalesced rapidly. General discussion.

Adjourned.

ETTA CHARLES, Secretary.

NOBLE COUNTY

The Noble County Medical Society met at the Hoosier Club, Ligonier, May 6, 1913. The meeting was called to order by President Clapp at 11:30 a. m. Present, twenty-five. Minutes of previous regular and intervening meetings read and approved.

The application of Dr. F. M. Perkins, Kendallville, for membership was received and referred to the board of censors.

Dr. Perkins read an able and instructive paper entitled "Refractive Errors in Children; Their Significance and Results of Correction." This proved to be a splendid paper and brought out in a forcible manner the importance of this condition especially in the young, and the great good mentally, socially and intellectually that is accomplished by early correction of refractive errors.

After a delicious banquet served by the Ligonier fraternity the society was called to order by President Clapp at 2 p. m. Dr. J. B. Berteling, South Bend, gave a lecture on "The Physiology and Pathology of Inflammation." Snappy, bright, radical and up to the minute in his views the doctor delighted the society, and his effort elicited a free and interesting discussion by many men.

Dr. G. E. Emanuel, Edgerton, Ohio, read a paper on "Narcotic Drug Addiction." This was in the nature of a novelty, it being out of the ordinary, not only in literary ability but a decided departure from the routine paper heard at medical gatherings. Dr. Emanuel enlarged the sympathies of the profession present for the unfortunate drug addict and stimulated our desires to be of service to them. He advises and uses the gradual reduction method of treatment.

At this time the society received an invitation from the Whitley County Medical Society to furnish a scientific program at the next meeting of Whitley County Society which meeting would occur May 13 at Columbia City. Society accepted the invitation and appointed the following men to appear on the program: Fred R. Clapp, "Diagnosis of Extra-Uterine Pregnancy"; J. E. Luckey, "Relation of Specialist to General Practitioner"; Woodard Hays, "Mixed Infection phylacogens"; W. F. Carver, "Tansy Poisoning with Report of Case."

The Whitley County Medical Society men were invited to furnish the scientific program for Noble County at Kendallville, September 2.

On motion a vote of thanks was extended to Drs. Berteling and Emanuel for their excellent addresses.

Adjourned.

W. F. CARVER, Secretary.

POSEY COUNTY

The Posey County Medical Society met in New Harmony, May 14, with twenty physicians present. The scientific session was called to order by the president, Dr. Rawlings, at 10:30 a. m.

Dr. Hayden, Evansville, delivered an address on "Appendicitis, Its Diagnosis and Medical Treatment." Nearly every physician present took part in the discussion which followed. The society then adjourned for luncheon which was served at the Tavern Hotel.

The meeting was called to order at 1:30 p. m. and the annual election of officers took place. Dr. Arburn was elected president, Dr. E. Rinear was reelected secretary-treasurer and Dr. Fullenwider was appointed delegate to the state meeting with Dr. Barrett, Dr. Rinear, Dr. Ramsey and Dr. Turman as alternates. A board of censors was also appointed, consisting of Dr. Emmiek, Dr. Gibson and Dr. Boran. Dr. S. O. Rawlings and Dr. Fullenwider were appointed as committeemen on Red Cross Medical Work, it being the duty of the two last named physicians to appoint three other physicians from the society to act as members also of the Red Cross Medical Work, the names of whom will appear later.

Dr. Turman then reported a case of masked malaria, which was followed by a lively discussion.

Matters pertaining to the growth and general welfare of the society were taken up, as also the relation the physicians have to the "Keegan Law."

It was decided that the next meeting would be held some time in August, in Poseyville, subject to the call of the secretary.

This meeting was perhaps the best meeting that was ever held in Posey County.

A vote of thanks was extended to the New Harmony physicians for their kindness and courtesy as host to the visiting physicians.

EDWIN RINEAR, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the Council on Pharmacy and Chemistry of the American Medical Association for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicine" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the Council on Pharmacy of the American Medical Association and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 North Dearborn Street, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

CHOLERA AGGLUTINATING SERUM.—The dried-blood serum of horses which has been injected with killed cultures of the cholera vibrio. It is intended for the diagnosis of cholera by the agglutination of suspected cholera vibrios. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

DIPHTHERIA BACTERIN.—This is a Bacillus Diphtheriae vaccine claimed to be useful for the treatment of diphtheria-carriers and for immunization against diphtheria. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

COLI VACCINE (POLYVALENT).—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

GNOCOCCUS VACCINE (POLYVALENT).—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

PNEUMOCOCCUS VACCINE (POLYVALENT).—For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS VACCINE (POLYVALENT).—Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS ALBUS VACCINE (POLYVALENT).—Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCUS AUREUS VACCINE (POLYVALENT).—For description of Staphylococcus Vaccine see N. N. R., 1913, p. 225. Schieffelin & Co., New York (*Jour. A. M. A.*, May 10, 1913, p. 1461).

STAPHYLOCOCCIC CULTURES.—These cultures consist of colonies of active living *Staphylococcus aureus*. They are intended for the elimination of diphtheria bacilli from the throats of diphtheria-carriers. H. K. Mulford Co., Philadelphia (*Jour. A. M. A.*, May 10, 1913, p. 1461).

LUMINAL.—Luminal is phenyl-ethyl-barbituric acid. It is closely related to veronal, which is diethylbarbituric acid. It is a white, slightly bitter powder, almost insoluble in cold water. It is claimed to be a useful hypnotic in nervous insomnia and conditions of excitement of the nervous system. Merck & Co., New York (*Jour. A. M. A.*, May 17, 1913, p. 1541).

LUMINAL SODIUM.—Luminal sodium is the sodium salt of luminal. It is hygroscopic and readily soluble in water. It is used for hypodermic injection in 20 per cent. solutions. Merck & Co., New York (*Jour. A. M. A.*, May 17, 1913, p. 1541).

REFORM IN MEDICINES

DR. EDWARDS' OLIVE TABLETS.—On the one hand these tablets are advertised—to the public—that they owe their value to olive oil; then again they are referred to as "olive oil colored." Both claims are untrue. Their color is vivid green and examination in the A. M. A. Chemical Laboratory showed them to be an aloe pill (*Jour. A. M. A.*, May 3, 1913, p. 1378).

PRESCRIBING PROPRIETARIES.—While the main objections to the prescribing of proprietaries are based on a consideration of the public health and of scientific medicine, there is also an economic objection to their employment. "If you prescribe Antikamnia, Cystogen or Purgen and your patient feels better or gets well," said an old druggist to a young practitioner, "the patient will be a walking advertisement for the respective proprietaries. If, on the other hand, you prescribe acetanilid, hexamethylenamin or phenolph-

thalein, in the form of a regular prescription, he will recommend the prescriber—you—to his best friends." (*Jour. A. M. A.*, May 3, 1913, p. 1378.)

FRIEDMANN SELLS OUT.—Last November Friedrich Franz Friedmann read a paper before the Berlin Medical Society announcing that he had succeeded in producing a race of avirulent tubercle bacilli by which he claimed to be able to produce curative effects in all but the most advanced cases of tuberculosis and to immunize children against the disease. While Friedmann might have had ample opportunity to test the value of his preparation in Germany, he preferred to come to this country—for the million dollars offered by a wealthy philanthropist. Now it is announced that a deal has been consummated through which he is to get a large sum of money immediately, with great prospects for the future. It is safe to conclude that he has realized the ideal he had in mind when he landed on our golden shores. According to newspaper reports branch "institutes" are to be established in every state by a syndicate formed by Dr. Friedmann and his promoters. These institutes will make their own cultures and thus, by a technicality, will evade the federal law which places all serum and vaccines under the control of the Public Health Service (*Jour. A. M. A.*, May 3, 1913, pp. 1365 and 1367).

A GOOD PRINCIPLE.—*American Medicine* says editorially: "No physician has a right to employ any uncertain and possibly dangerous remedy in the treatment of disease in human beings until he knows all that anybody knows concerning its composition, character and action." And yet this journal advertises Phenalgin, Sanmetto, Bannerman's Consumption Cure, Campho-Phenique, Anasarcin, Sal Hepatica, Phenol-Codique, etc., all of which are "uncertain and possibly dangerous" remedies. (*Jour. A. M. A.*, May 3, 1913, p. 1368.)

DUKET CONSUMPTION CURE.—Ex-Senator Wm. Lorimer who is financing the Duket Consumption Cure has asked governors of all states to send a representative to Chicago to watch the "cure." It is also stated that he has induced the U. S. Public Health Service to make an investigation. After graduating from the Hahnemann Medical School of Chicago in 1893 and practicing in several states he opened the "Tubercular Sanatorium Company" at Findlay, Ohio, where he used a so-called serum said to be an "antiseptic lymph" which was stated not to be made from any tubercle bacilli and to be used intravenously. The Duket "cure" is being foisted on the public by a man who has no scientific standing and has had little or no scientific training. (*Jour. A. M. A.*, May 10, 1913, p. 1476.)

TONGALINE.—Tonga is said to consist of a mixture of roots and barks which was first used by the "medicine men" of the Fiji Islands. While its therapeutic inefficacy soon became apparent the word tonga has been perpetuated by calling a salicylate mixture "Tongaline." Each fluidram has been claimed to contain: Fluid Tonga, 30 grains; Extract of Cimicifuga Racemosa, 2 grains; Sodium salicylate, 10 grains; Pilocarpin salicylate, 1-100 grain, and Colchicin salicylate, 1-500 grain. Some of the claims for Tongaline are, "It cures rheumatism, neuralgia, grippe, gout, headaches, malaria, sciatica, lumbago, tonsillitis,

heavy colds and excess of uric acid." The greatest objection to the use of such a nostrum by the medical profession is that it prostitutes the science of medicine and sets back the clock of therapeutic progress. (*Jour. A. M. A.*, May 10, 1913, p. 1476.)

ELIXIR TONGA COMPOUND.—The extensive advertising of Tongaline has kept alive a feeling that tonga has certain valuable—if mysterious—properties. As a result almost every large pharmaceutical house puts out a tonga preparation in the hope of reaping some financial benefit from the advertising of Tongaline. If Tongaline were not advertised, tonga would be forgotten and relegated to the therapeutic scrap-heap. Most of the tonga mixtures appear in the form of compound elixir of tonga, which are said to contain tonga, but depend for their action in the main on the salicylates which they contain (*Jour. A. M. A.*, May 10, 1913, p. 1478).

COLLYRIUM, WYETH.—In reply to an inquiry regarding the composition of Wyeth's Collyrium the manufacturers write that "being a corporation" they "are not at liberty to disclose the various formulas" of their preparations. In other words, John Wyeth & Brother expect physicians of this country to prescribe "patent medicines" of whose composition they must be ignorant. Analysis of Collyrium, Wyeth, in the A. M. A. Chemical Laboratory showed its composition to be essentially: antipyrin, 0.41 gm.; sodium borate, 0.55 gm.; boric acid, 2.14 gm., and water to make 100 c.c. The secret of such a formula must indeed be a "valuable asset" (*Jour. A. M. A.*, May 17, 1913, p. 1557).

DIATUSSIN.—According to an advertising circular issued by E. Bischoff & Co., purporting to be a "reprint from the *Munich Medical Weekly*" Diatussin is ". . . a dialysate to *Herbae Thymi* and *Pinguiculae*." The latter is said to be known in the Alps as "blue fatweed." The only further information as to the composition of this preparation is the statement that "the dialysate of this blue fatweed is said by the manufacturer to contain a proteolytic ferment." The writer of the article speaks of a "procession of mothers" with their children affected with whooping-cough who came to him from a neighboring village. Yet he admits that the small number of cases which he has had permit of no definite conclusions and that his article is written to interest others in the nostrum (*Jour. A. M. A.*, May 17, 1913, p. 1558).

BOOK REVIEWS

DISEASES OF CHILDREN. A Practical Treatise on Diagnosis and Treatment. For the use of Students and Practitioners of Medicine, by Benjamin Knox Rachford, Professor of Diseases of Children, Ohio-Miami Medical College; Department of Medicine of the University of Cincinnati; Pediatrician to the Cincinnati Hospital, etc. Cloth, with 783 pages. Price, \$6.00. D. Appleton & Company, 1912.

In looking over this primary edition of Dr. Rachford's work on pediatrics, one is struck first, perhaps, by the very practical way in which his subjects are treated. In fact he has made a feature in his work

of treating the subject in a way that makes his work appeal primarily to the busy practitioner, only outlining the pathological findings and abbreviating etiologic discussions in order to allow of more space for differential diagnosis and treatment.

It is somewhat of a relief to find the various infectious processes involving the stomach and small and large bowels grouped under a rather general head, and particularly the latter two under the heading of Enteric Infections. Exception might be taken to certain phases of the author's treatment of these acute bowel infections wherein he recommends a repetition of cathartics such as castor oil; this is at variance with more recent teaching and it does seem more rational to administer perhaps an initial cathartic and then give the inflamed bowel rest.

The author takes a very practical and creditable stand in his ideas on infant feeding, namely, that no series of babies can be most successfully fed on either the percentage method of feeding or the caloric method exclusively. He calls attention to the fact that though we may simulate in percentage the various elements of mother's milk, yet when we are dealing with cow's milk, the quality of the ingredient may differ radically from that of maternal breast milk. For instance, simply to provide for a certain percentage of proteid in cow's milk that approximates the amount in mother's milk does not in reality afford an exact substitute for such mother's milk by artificial means. Again, we may be feeding a child the proper number of calories for the weight of that child, and yet have the child either under-fed or over-fed, so that after all it becomes a question of the pediatrician's own practical judgment in the individual case at hand. He gives considerable space to Finkelstein's high proteid feeding and speaks well of the combination of dextrin and maltose for supplying the carbohydrate temporarily in certain cases of malnutrition.

All told the work is both interesting and valuable as a practical reference work on modern pediatrics.

HANDBOOK OF DISEASES OF RECTUM. By Louis J. Hirschman, M.D., President of the American Proctologic Society, Lecturer on Rectal Surgery and Clinical Professor of Proctology, Detroit College of Medicine. Revised and Rewritten Second Edition. 338 Pages. Royal Octavo—172 Illustrations—Including Four Colored Plates. Price, \$4.00.

It has been just four years since the first edition of this book appeared. The advances made in proctology in these four years have been numerous and of very practical importance. This together with the author's able treatment of the subject in the first edition, justifies fully the appearance of this second edition.

The author's idea has not been to write a text-book on proctology or on surgery of the rectum but to give the practitioner a good working knowledge of the diseases of the rectum which he meets in his everyday work, and what is of more importance, how he may treat these disorders intelligently.

The anatomy of the anorectal region is followed by a brief summary of the symptoms which should call attention to the rectum. A full chapter is devoted to each of the more common diseases of the rectum, their course, diagnosis and treatment taken up in regular order.

The most admirable feature of the work is the simple yet detailed manner in which the author gives the

technic for the office treatment of anorectal disorders. With the exception of a few instruments every general practitioner already has the equipment to carry out the treatments in his office. The technic includes, of course, a complete description of the best methods of including local anesthesia in this region.

Dr. Hirschman shows that he fully recognizes the limitations of office treatment of anorectal diseases by devoting a chapter to these limitations and giving the indications for other measures.

The book ends with a chapter on the clinical examination of the feces by Dr. George W. Wagner. This includes Schmidt's method of examining the stool and a description of the intestinal animal parasites.

This book will do a great deal to arouse the general practitioner to the possibilities of this line of work and not allow the charlatan to take from them work which can and should be done by the legitimate practitioners of medicine.

ORGANIC AND FUNCTIONAL NERVOUS DISEASES. A Text-Book of Neurology. By M. Allen Starr, M.D., Ph.D., LL.D., Sc.D., Professor of Neurology, College of Physicians and Surgeons, New York. Fourth Edition, Enlarged and Thoroughly Revised. Octavo, 970 Pages, with 323 Engravings and 30 Plates in Colors or Monochrome. Cloth, \$6.00, net. Lea & Febiger, Philadelphia and New York, 1913.

The fourth edition of this book is fully up to the standard of the former editions. The arrangement has been changed and the parts presented in a more systematic order. The advances and discoveries in medical science have necessitated a decided change in a number of chapters, such as those on poliomyelitis and syphilis.

The text has been divided into four parts: 1. Structure of the nervous system and the diagnosis of nervous diseases. 2. Organic nervous diseases. 3. Functional diseases. 4. The sympathetic system and its diseases. Part one is deserving of special mention as it is supplemental to the remainder of the book. In this part each symptom that may arise in affections of nerves, cord or brain, is described and the manner of its elicitation portrayed and the anatomical and physiological changes giving rise to the symptom clearly explained. By reference to this part of the book when reading a description of a given disease a clear and comprehensive picture of the whole process is obtained. The many photographs and diagrams enhance the value of the text materially. Professor Starr's clinical experience and his ability to paint word pictures of nervous diseases needs no comment.

The opinion he expresses that bed-sores and cystitis are rarely due primarily to lesions of the spinal cord and may usually be avoided by proper care, deserves emphasis, as so frequently these avoidable complications cause the patient more suffering and discomfort than the original disease. Freud's hypothesis of hysteria is criticised rather severely and his method of treatment of this condition by the so-called mental purgation is unqualifiedly condemned.

The book is exceptionally well illustrated with numerous plates, photographs and schematic drawings which materially aid in elucidating the text. It is a most excellent work for the student and practitioner.

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NUMBER 7

ORIGINAL ARTICLES

THE X-RAY DIAGNOSIS OF GASTRO- INTESTINAL DISEASE

REPORT OF SIX CASES

ALBERT M. COLE, M.D.
INDIANAPOLIS

In the last few years there has been a marked advance in the x-ray study of gastro-intestinal disease. This has arisen from two causes. First, great improvement in x-ray apparatus. Secondly, the working out by the Germans of the bismuth meals, which give data that are of the greatest importance in the diagnosis of diseases of the gastro-intestinal tract.

The improvement in x-ray apparatus enables us to take almost instantaneous exposures, making, for instance, a stomach skiagram in from one-tenth to one-fifth of a second, which gives an impression on the photographic plate unaffected by peristaltic action. This is most essential.

The technic of the bismuth meals is as follows: The patients are given a brisk purge the day before and placed on a liquid diet. The following morning they are instructed to take two ounces of bismuth subcarbonate in milk or cereal. They come to the x-ray laboratory six hours later without taking any food in the meantime. The first skiagram is now taken. The normal stomach should show no bismuth residue after six hours. If there is a residue we note its amount, its position and its shape, and draw our conclusions. We thus determine the motor activity of the stomach more accurately than by any other method. We determine the function of the pylorus, whether obstruction or spasm is present, and the compensation of the gastric muscles. We also follow the bismuth that has passed out of

the stomach to determine the functional activity of the small bowel.

After the first skiagram we immediately give a second bismuth meal consisting of two ounces of bismuth in 300 to 400 c.e. of buttermilk. We then, through a period of several hours, take a series of from six to eighteen plates, depending on conditions found on the first few plates. From this series of plates we determine the size, shape and position of the stomach—whether dilated or contracted, whether a normal “fish-hook” or “cow-horn” stomach, or whether atonic and dropped into the pelvic cavity. We also look very carefully for “filling defects,” so called, that show as indentations in the stomach’s shadow caused by tumor contractions, or we look for “hour glass” appearance, usually caused by ulcer or cancer, or we note any persistent lineal indentations running into the stomach shadow from the greater or lesser curvatures which very often means ulcer on the opposite side. We note the pyloric shadow and the “pyloric cap,” which, when distorted, or absent, may point to duodenal ulcer or adhesions to the liver or gall-bladder. We watch the stomach peristalsis through the fluorescent screen, which will often give important information which the plates may not show. If warranted by the history of the case we then follow our bismuth down through the small and large bowel, or fill the colon by our bismuth enema and by additional plates and fluoroscopic study determine as to kinks, tumors, adhesions or other obstructions.

Then, from the data obtained from our x-ray study, taken with the history, the analysis of the gastric secretions and the results of palpation we draw our conclusions and make our diagnosis.

So the x-ray is only one factor in the diagnosis of gastro-intestinal diseases, but I believe it is by far the most important factor, and it will be so recognized as the profession becomes familiar

with its teaching. By its means we are often able to diagnose organic disease that can be found by no other method outside of an exploratory laparotomy. Its expense to the patient will preclude it in some cases. Its chief difficulty is the proper interpretation of the x-ray plates. Only careful study, experience and following cases to operation or autopsy will help here.

One must know the normal stomach and intestinal shadow; when abnormal it must show in all the plates of the whole series the constant lesion, as insisted on by Dr. Lewis Gregory Cole of New York.

From a considerable number of cases I have selected six showing the possibilities of x-ray diagnosis in gastro-intestinal work. The illustrations are taken from one skiagraphic plate in each case, which plate is one of a series of the same case taken during a period of several hours following the second bismuth meal or after a bismuth enema. The diagnoses have been confirmed by operation, except in one case.

Figure 1.—*Extensive Carcinoma of Stomach.* History of indigestion for several years. There was marked loss of weight and some vomiting, no palpable tumor, absence of free HCl in stomach secretions and considerable ascites. A diagnosis of gastroptosis had been made. Skiagrams immediately following bismuth meal all show large irregular shadow. Plates taken stereoscopically show the upper shadow to be stomach very contracted, with greater and lesser curvatures roughened and distorted and the lower shadow to be small bowel. The plates are all indistinct on account of fluid in abdomen.

Diagnosis: Extensive carcinoma involving entire stomach and holding the pylorus open. On operation the diagnosis was found to be correct. The tumor involved the entire posterior stomach wall and both curvatures. The pylorus was held rigidly open so all the stomach contents passed immediately into the small bowel. This condition is probably rare. Disease was too far advanced to attempt removal. Patient lived only a short time after operation.

Figure 2.—*Carcinoma Near Pylorus.* History of indigestion. There was reduction in free HCl, no vomiting and no tumor palpable. The six-hour bismuth meal showed considerable residue in stomach. The series of plates following second meal all show "filling defect" caused by nodule on greater curvature near pylorus.

Diagnosis: Carcinoma near pylorus causing some obstruction. Confirmed by operation.

Figure 3.—*Gastric Ulcer and Pyloric Adhesions.* There was vomiting, pain and tenderness over epigastrium and loss of 40 pounds in weight. No tumor was palpable and no gastric analysis was made. Circumstances made it impossible to properly prepare the bowels or give the six-hour

bismuth meal. The series of plates show roughened pyloric sphincter and no "pyloric cap," with pylorus drawn to left.

Diagnosis: Pyloric adhesions. Operation revealed extensive pyloric adhesions due to penetrating ulcer on lesser curvature. This was marked by roughening on lesser curvature, showing on all the plates, but overlooked. This would have probably shown much larger had the stomach been empty of food and the patient properly prepared.

Figure 4.—*Stomach in Thorax.* This case was reported by Dr. John C. Sexton in the February number of THE JOURNAL. The stomach is shown occupying a position in the chest. The heart is pushed over to the right and the opening in the diaphragm is shown.

Figure 5.—*Pyloric and Duodenal Adhesions.* History of indigestion for two years. There was loss of 15 pounds in weight. Pain and tenderness was marked over epigastrium, but no special point of tenderness could be found. No gastric analysis was obtained. There was absence of residue after the six-hour bismuth meal. The second bismuth meal showed an abnormal pylorus in the whole series of plates. There was a roughened outline around pyloric sphincter, with absence or distortion of the pyloric cap.

Diagnosis: Pyloric and duodenal adhesions. Operation showed pylorus bound down with adhesions, with a small dense cicatrix near pyloric sphincter, probably from old ulcer, but causing no obstruction.

Figure 6.—*An Enlarged Sigmoid with Constriction.* The patient was brought to me to skiagraph the left kidney and ureter for stone. He had suffered almost daily for a month intense paroxysms of pain on the left side, low down in front. He had passed a kidney stone several years previously. The skiagrams showed no indication of stone. A microscopic examination of the urine was negative. Ruling out the kidney and ureter as a cause for his pain we decided to give a bismuth enema and skiagraph the sigmoid and colon. We did so and found a very large sigmoid rising out of the pelvis above the umbilicus. On the right side there was a constriction and on the left an acute angle where the sigmoid joined the descending colon. This was the point over which the patient described his pain. Through his wife we then learned that he was an enormous eater, and taken with the skiagraphic findings we were led to believe that the sigmoid became packed with feces, and on account of the constriction and acute angle at the junction of the sigmoid and colon the bowel was unable to evacuate itself, and so caused the attacks of pain. Acting on this theory the patient was placed on a light diet and saline cathartics. Following this treatment he has had no return of the pain.

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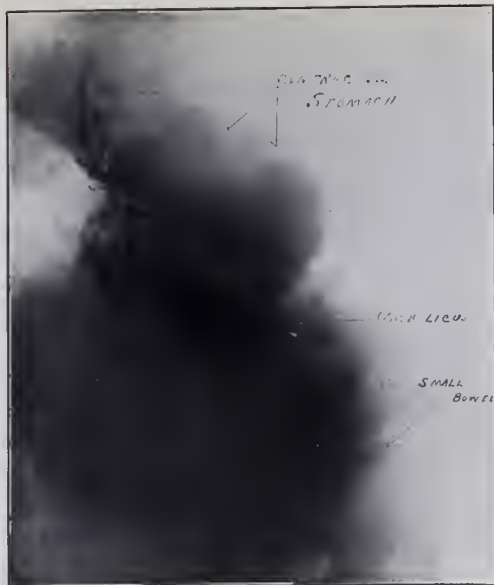


Fig. 1.—Extensive carcinoma of stomach.

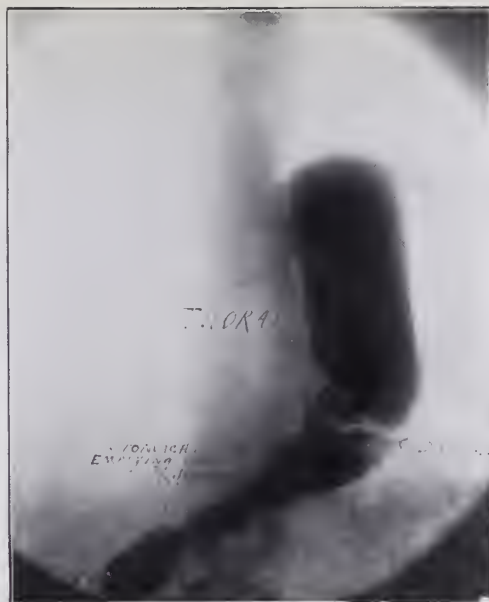


Fig. 4.—Stomach in thorax.



Fig. 2.—Carcinoma near pylorus.



Fig. 5.—Pyloric and duodenal adhesions.



Fig. 3.—Gastric ulcer and pyloric adhesions.



Fig. 6.—An enlarged sigmoid with constriction.

A CASE OF PEMPHIGUS VULGARIS PROBABLY DUE TO RENAL INSUFFICIENCY *

G. W. McCASKEY, A.M., M.D.

Professor of Medicine Indiana University School of Medicine,
Physician to Hope Hospital
FORT WAYNE, IND.

The following case is considered worthy of report because the diagnosis was rather difficult owing to certain borderline features, which, it may appear to some, fairly challenge its correctness; and because of the remarkable but completely masked renal insufficiency, which very probably bears a close causal relationship to the dermatosis.

The question of renal adequacy, especially in the large group of chronic nutritional and toxic diseases of all types, is one of commanding interest. Depuration of the blood, for the most part dependent on the kidneys, should be performed with completeness and promptness. If it takes the kidneys fifteen hours to do what should be done in ten hours, even though the process is in the end quite as complete in the one case as in the other, it means the more prolonged contact of circulating toxins with the various body tissues, nervous, glandular, cutaneous, etc., the importance of which it is not difficult to appreciate. The span between that degree of toxemia which we call physiological and which is coincident, e. g., with .01 to .05 per cent. of urea in the blood, and that other degree, lethal in character, associated, e. g., with .5 per cent. of urea in the blood may be long, but it can be easily bridged by progressive renal failure, and present every possible intermediate gradation. Slow degenerative and other structural changes and profound vasomotor and trophoneurotic disturbances such as characterize pemphigus may very plausibly be looked for among the results. During my last year's work in the field of internal diagnosis this question has grown larger and more vital all the time, and on more than one occasion by utilizing the methods now at our disposal, I have found not only the key to an obscure pathology, but the always possible, although by no means constant, key to a successful therapy. The discussion of these methods any further than they are incidentally unfolded in the report of this case is not within the intended scope of this communication, but will be fully dealt with in another paper now in course of preparation. Let us now take a brief view of the case.

Mrs. B., age 39, entered Hope Hospital Nov. 25, 1912, her principal complaint being general debility and skin eruption. Family history: Her father died at 51 of grippe and heart disease. Mother died at 51 of consumption. One sister and six brothers living, all well, excepting one brother, who has chronic appendicitis. One paternal aunt has tuberculosis. No history of cancer, or any diathetic disease.

Personal history: Had the usual children's diseases. Typhoid fever about eight years ago. Twelve years ago, during pregnancy, had acute Bright's disease with dropsy. Has had three children, the last one six months before entering hospital. Has always had more or less disturbance of stomach digestion. Rather worse for the last two years. Bowels constipated.

About five months ago first noticed a slight erythema and swelling of ankles with some pain, and some sort of "sores." This was probably partly of dropsical character, as will appear later. It then got much better, although some skin irritation continued, until about seven weeks before entering hospital when she began to have aching of the legs with some erythema and about one week later appeared the first crop of bullae over the lower extremities. These were very bad for several weeks, disappearing for the most part about the middle of November. She was in the hospital at that time only a few days, and was then free from the water blisters until about January 1, when they began to form again, and were very bad at the time of her second admission to the hospital, Jan. 22, 1913. The entire body and limbs were covered with these blebs, which were for the most part circular or oval, some being quite elongated. There would be as many as fifty or one hundred indiscriminately scattered over the limbs and trunk without any tendency to grouping anywhere. No part of the body was exempt, though the face and lower trunk were relatively so. They were on the soles of the feet, palms of the hands, legs, sides, forearms, arms and trunk as well as face, and also on buccal mucosa. The condition of the skin between the bullae was normal excepting where it showed damage from previous long-continued eruption. I did not see any papules at any time, although one of my associates says that they were present. The evolution and characteristics of the bullae were entirely like those of pemphigus. On the surface of the skin where they formed, and which appeared to be perfectly healthy, there would be a slight tingling, which perhaps would be rubbed lightly with the finger and almost instantaneously the patient declared, *within one minute*, a large bleb would form a half or three-quarters of an inch in diameter. The skin surrounding these bullae was absolutely normal up to the very margin. There was not at any time the slightest suggestion of an arcola. There was nothing whatever, in other words, to indicate the

* Read before the Fort Wayne Medical Society March 25, 1913.

development of the bullae on an inflammatory base. The patient complained bitterly of itching and burning, which kept her awake nights.

The patient's general condition was rather bad, suffering from indigestion and general debility. She was of rather slight build, weighing under 100 pounds. There was slight fever a part of the time, the temperature ranging up to 100 or a little less, and then for days at a time dropping back to normal. The pulse ranged from 90 to 100. Her systolic blood-pressure was 135 (sitting). The chemical and microscopical examination of the urine was negative. Sp. gr. 1.020, no albumin, no sugar, no casts, but a good many leukocytes. The blood examination showed 80 per cent. hemoglobin and from 13,000 to 18,000 leukocytes, polynuclears from 66 to 82 per cent., and on one of three examinations 10 per cent. of eosinophils, though the other times there were only 2 and 3 per cent., respectively.

On account of the history of Bright's disease of an acute character occurring twelve years ago, it was suspected that there might be impairment of renal function due to damage incurred at that time. The phenolsulphonephthalein test confirmed this suspicion. This was made twice and during the two hours there was excreted in one of the tests 37 per cent., and in the other 38 per cent., which, of course, showed very marked impairment of renal function. The kidneys were then subjected to some dietetic tests with proteids and chlorids the results of which are shown in the accompanying table. For some reason the

| Days of Observation | 1st | 2d | 3d | 4th | 5th | 6th | 7th | 8th |
|---------------------|-----|-----|-------|-----|-----|-----|-----|-------|
| Gms. proteid daily | 55 | 130 | 130 | 130 | 130 | 130 | 130 | 130 |
| Gms. NaCl daily | 8 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Cc. urine daily | 960 | 670 | 1,020 | ... | ... | ... | 500 | 1,440 |
| Gms. urea excreted | 8.1 | 3.3 | 7.3 | ... | ... | ... | 8.5 | 17.5 |
| Gms. NaCl excreted | 4.2 | 2. | 3.7 | ... | ... | ... | 4.5 | 4.5 |

records of the analysis of the urine made on the fourth, fifth and sixth days of this observation are missing. There can be no doubt, however, of the retention in the blood of both urea and chlorids. I regret very much that the ammonia estimation and the total nitrogen by the Kjeldahl method were not made, although the discrepancies between intake and output are so great that they could not be explained by any anomalies of nitrogen partition. So far as the urea is concerned, after apparently going up gradually until the seventh day to 8½ grams, it suddenly is more than doubled on the eighth day, reaching 17½ grams. This is probably explained by the gradual surcharging of the blood until it reached the point where a considerably increased amount of urea was forced out through the relatively impermeable kidneys. The chlorids did not rise very much during the entire period. The patient suddenly left the hospital after the eighth day so that the investigation could not be longer con-

tinued. The very low urea and chlorid output of the second days was apparently the result of the low intake on the previous day. The records do not give satisfactory information in regard to the diet for the few days preceding the beginning of this investigation.

It is interesting to note with reference to the blood, that a blood-culture was made on two occasions and found to be negative both times. The leukocytes varied from 13,000 to 18,000, the polymorphonuclears being 82 per cent. with the high count and 66 and 77 per cent. in each of the two others. The eosinophils ranged from 2 per cent. to 10 per cent. On the fourth day of the observations above tabulated, the blood was analyzed and found to contain .54 per cent. of chlorids. This is really a low chlorid content for the blood, and the retained chlorids must have been distributed in the tissues.

In reviewing the data of this case, several points of interest are suggested. In the first place, pemphigus is a very rare disease, 385 cases being recorded in a total of 309,406 cases of various forms of skin disease. Probably the proportion would be still less with the differentiation which is now adopted, and the elimination from the group of cases known as pemphigus of a large number formerly placed there. There are undoubtedly several features of this case which do not conform to the strictest type of pemphigus, and which possibly indicate complicating conditions. In the first place the typical thing is for the crop of bullae to develop rather suddenly without any antecedent eruption. In this case we have several months before the onset a history of erythema and edema of the ankles, with some sort of "sores," all of which is, I think, easily explained on the ground of renal inadequacy. Then again for several days before the sudden onset of the blebs, there was a mild grade of skin irritation which is easily accounted for by the toxemia present. There are evidently occasional exceptions to antecedent healthy condition of the skin in pemphigus, for Jacobi (*Dermochromes*, Vol. I, page 13) says, "If erythematous prodromal rashes occur," then the disease must be differentiated from erythema multiforme by localization and course. Furthermore, in a case in which the eruption has lasted for months, as it did in this case, it would seem that more or less secondary polymorphism might result. In one variety of pemphigus known as Vegetans, condylomatous outgrowths occur at the base of the blebs, and it would not seem strange if in an ordinary case where many hundreds of blebs formed, a few would produce anatomical changes of a gross character which might remain. On the other hand, it seems perfectly evident that a

genuine pemphigus might follow other eruptions, occurring, for example, in renal toxemia quite as well as a "prodromal erythema," as stated by Jacobi.

Considerable stress is laid on the greater severity of the itching in dermatitis herpetiformis. It was undoubtedly quite severe in this case. But pruritis is present in pemphigus and it is simply a question of degree. Moreover, there is one type of pemphigus, namely, pemphigus pruriginosus, in which the itching is very conspicuous and very severe. It does not seem, therefore, that much reliance could be placed on the presence of severe itching to exclude pemphigus.

The diagnosis, to my mind, appears to be established by the presence of a widely diffused bullous eruption, without the slightest tendency to grouping, *no single bleb ever having been seen with an areola surrounding it*, and occurring as a rule on skin that was healthy preceded only by a slight tingling or possibly by an evanescent erythema. Although dermatologists are, I believe, quite generally agreed in separating dermatitis herpetiformis from pemphigus, one cannot avoid being impressed by their points of resemblance. Jacobi says that the diagnosis of dermatitis herpetiformis can, as a rule, only be established after long observation, on the grounds of polymorphism, intense itching, repeated relapses and benign course. If the patient dies, it is pemphigus; if the patient gets well it argues in favor of dermatitis herpetiformis. And yet it is agreed that some cases which are undoubtedly pemphigus run a mild course, and end in complete recovery. Again, so far as the red areola surrounding the bleb is concerned, it is well recognized that it may sometimes be absent in dermatitis herpetiformis. The pathology of both diseases is obscure. The trophoneurotic theory is considered the most plausible for both. In fact, it is evident that any theory which does not reckon with the nervous system would be fatally defective. Among the ultimate causes renal insufficiency has been invoked in both diseases. Their kinship is evidently close.

In regard to the classification of pemphigus, the variety known as pemphigus vulgaris is the only one under which this case can be grouped. The other best recognized variety, viz., pemphigus foliaceus is distinguished chiefly by its malignancy. The blebs have a flabby consistence instead of the tense firm condition which they present in pemphigus vulgaris. The extreme malnutrition is shown by the fact that there is frequently little or no tendency to new skin formation in the base of a ruptured bulla. The ter-

mination is usually fatal, and yet its unity with pemphigus vulgaris is shown by the fact that it may begin as the latter form. Pemphigus neonatorum is an infectious disease occurring in the new born. These, with pemphigus vegetans, and pruriginosus, already referred to, comprise the principal varieties.

When the patient left the hospital she was greatly improved, but not free from bullae. Toward the close of her stay in the hospital her morning report would be that she was having a smaller number of "water blisters" develop during the night. Sometimes none had formed; at others two or three in widely scattered regions. Her present condition is unknown.

The treatment consisted of prolonged alkaline baths, the local application of antipruritic remedies, castor oil and calamine lotion, etc., the exhibition of iron and arsenic and strychnia and, most fundamental of all, the careful adjustment of the proteid and chlorid content of the diet, so far as possible to the lowered functional capacity of the damaged kidneys.

In conclusion, I wish to express my deep obligation to Dr. M. F. Porter, Jr., and Dr. B. M. Edlavitch, as well as Miss Maurer, supervisor of nurses in Hope Hospital, for their valuable assistance, without which these laborious studies in diet and metabolism which I have been making, especially in renal disease, and which will be published later, would have been impossible.

A CASE OF COLONIC PAIN SIMULATING RENAL COLIC *

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About the first of November, 1912, a case was referred to me with a diagnosis of renal colic. While I make it a rule to verify each diagnosis, I was especially careful in this case because of the previous history. It presented the following data:

R. M. F. Male, age 28; married; occupation, student of telegraphy; had for several years been a traveling salesman. Ten years ago patient had attacks of renal colic. Skiagraphy showed a large right renal calculus. After considerable procrastination this was removed by nephrotomy. Suppuration ensued and it became necessary at a later date to do a right nephrectomy. The patient made a good recovery and remained well until the spring of 1912, when periodical attacks of pain in the left lumbo-abdominal region were experienced. Following one of these attacks the

* Read before the Indianapolis Medical Society, April 1, 1913

patient said he passed two small stones from the urethra. The attacks, however, continued. A physician diagnosed renal colic and prescribed morphin, together with chloroform inhalations. During the summer the patient was married, gave up traveling and came to Indiana to study railroad accounting in a school of telegraphy. Here he had numerous attacks of pain so severe that morphin gave no relief, and each time the attending physician was obliged to supplement it with chloroform anesthesia, and continue this thirty to sixty minutes before relief was obtained. The pain began in the left lumbar region and radiated downward and forward toward the pubes—thus being typical in location and character of renal colic. There was no rise in temperature, and he stated that there was often a suppression of urine for as much as twelve hours. These attacks, at each of which complete anesthesia was



An enlarged sigmoid with constriction.

necessary, occurred on the following dates: August 31; September 4, 6, 13, 15, 19, 28; October 4, 9, 12, 14, 18, 20, 23, 26 and 27. November first the patient was referred to me, and with these facts before me I sought to verify the diagnosis, and to locate the point of obstruction, which was supposed to exist in the ureter. This supposition was strengthened by a report from a radiographer in Chicago who had skiaographed the left kidney region, and which report stated that no stone was found, but that apparently there was a cystic condition at the lower pole of the kidney.

The patient was strong, well nourished and exceedingly muscular. His appetite was fine—in fact, his wife declared that he was an enormous eater. The bowels were regular, and during intervals between attacks the patient seemed in perfect health.

Physical examination revealed nothing (aside from the scar of the former operations) save tenderness in the abdomen at a point corresponding to the pain. This seemed to point to an obstruction in the lower third of the ureter.

Meantime blood and urine examinations were made, with negative results.

These were followed by numerous radiographs of the kidney and ureter, which were all negative. The left ureter was then catheterized, the instrument passing readily its full length with no apparent obstruction. A silver solution was then injected and other pictures were made which were not satisfactory—probably owing to the weakness of the solution. In view of the existence of only one kidney a 10 per cent. Argyrol solution was employed, instead of the usual 20 per cent. An attempt to introduce a leaded catheter was abandoned, owing to a technical difficulty with the cystoscope. It was then decided tentatively to rule out the urinary system, and we went to work on the intestinal tract. A bismuth mixture was injected into the rectum and radiography was resumed, this time with better results. After a series of pictures, which included a number following a bismuth meal, we selected the one which is illustrated herewith as containing the solution of our problem.

A glance at the radiograph well show you an enormous sigmoid, which, if uncoiled, would be close to three feet long. Tracing it proximalward from the rectum it extends upward and to the right until it occupies a position in the right side of the abdomen considerably above the umbilicus. Describing a long, sweeping curve it descends toward the left lower quadrant where it terminates in a kink at its junction with the descending colon. And that kink corresponds to the point on the abdomen where the pain and tenderness terminated. A second apparent constriction is visible in the terminal portion of the sigmoid. This is probably due to an adhesion.

The diagnosis was colonic stasis, due to one or both of the obstructions shown. The enormous quantity of food consumed was also an important factor in the case. The abnormal length of the sigmoid may have been congenital, or it may have resulted from hypertrophy and dilatation.

The treatment indicated is surgical. It should consist of resection of the sigmoid loop, followed by lateral anastomosis of the severed ends. Operation in this case was advised, but was not urged as an immediate necessity. Meantime the patient was placed on a restricted diet, with occasional laxatives and abdominal massage. His wife being a trained nurse this treatment was easily and efficiently carried out, and under this regimen he has had no recurrence of pain, save slight attacks when his appetite has had full sway. It is my belief that he will eventually be obliged to undergo an operation.

For technical assistance and advice in this case I am indebted to Dr. A. M. Cole and Dr. F. R. Charleton.

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PELLAGRA *

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Pellagra is a disease of undetermined etiology, but so closely related to the consumption of spoiled maize that it is wise, until the cause and the disease are both clearly understood, to avoid the use of all corn food not known to be of best quality. We may define it as an endemic malady characterized by an erythema, usually symmetrical on the exposed surfaces of the body, by gastro-intestinal disturbances and by nervous and psychic phenomena. As an American disease it has attracted attention only during the past five or six years, but physicians who were soldiers in Andersonville and Libby prisons are sure that it was the cause of the high mortality, and the symptoms correspond with those now described. Of the four pellagrins at the Southeastern Hospital, three have died. One of these was the wife of a civil war veteran, who stated that he saw men in Andersonville with diarrhea and skin diseases totally like his wife's.

Historically, pellagra was probably the disease described by two Italian writers about 1600 as occurring in certain tribes of American Indians. They ascribed the malady, even then, to the use of corn as a constant part of the Indian diet. Maize was introduced into Spain as an article of food in about 1700 and about this time occurred the first descriptions of pellagra. The disease appeared in Italy about twenty-five years later than in Spain. By 1776 it had spread to such an extent that the sale or exchange in the public markets of corn having a bad odor, taste, or discolored was prohibited by the sanitary commission of Venice. About this time too a pellagra hospital was established by royal decree for its special study and treatment. The Italians gave the disease its name pellagra, meaning rough skin, and suggested another descriptive name, "the sunburn of spring." Among them it has most flourished, being worst among the corn-eating peasantry. Lombardy alone furnished forty thousand pellagrins in 1879, and all Italy nearly one hundred thousand. In France the disease did not appear until the nineteenth century, was chiefly in the southern part and gradually increased in numbers until about 1880, since when it has almost disappeared. In Spain, Southern Austria, the Ionian Islands and lower Egypt it is quite prevalent. England and the north countries have not suffered from the mal-

ady. In Yucatan, locusts so destroyed vegetation for a period of about ten years, beginning with 1882, that to prevent starvation, the lower classes were obliged to live on corn brought from New York in the holds of ships. The constant eating of this spoiled corn led to the slow development of pellagra. A period of ten years followed, during which the home-produced corn crop sufficed. The old cases of pellagra died out and no new ones appeared. Another interval of six years followed during which the corn crops failed and all classes used corn brought by vessels. Now an epidemic of pellagra broke out among all classes—the previous had not afflicted the wealthy, who had used no corn—which at length included 10 per cent. of the population.

In the United States the first cases diagnosed and described as pellagra were in 1863, one each in New York state and Massachusetts. In Andersonville prison about this time and after, the diet was chiefly poor, mouldy corn with bad water, and the surroundings were depressing. The men had a supposed eczema, loathed their food, the skin was rough and the hands cracked. The bowels were chronically loose. To this was added a deepening melancholy and dementia that gave strong probability that some of these at least suffered from pellagra. After this practically nothing is heard of pellagra among us until 1907, when reports of cases appear independently in different parts of the South. Within two years 1,000 cases were reported from thirteen states, and two years later over 2,000 cases were reported from thirty states. One doubtful case was reported from Indiana. Now we have had four undoubted cases from Cragmont.

The disease is widely scattered, yet worse in agricultural regions. One family had ten cases, the father, mother and eight children, three of these by the first husband. Many cases have been reported with two, three or four in the same family. Again, many cases appear in the same institution, yet we do not believe that it is transmitted to offspring nor to associates, but is due to a common cause or causes. Lombroso's theory probably comes nearest the true cause, namely, in pellagra we are dealing with an intoxication produced by poison developed in spoiled corn through the action of certain micro-organisms harmless to men. It is only fair to say that Sambon does not at all accept the spoiled corn theory, but attributes the disease to a widely distributed fly, the *simulium reptans*. Others weakly try to give the cause as poverty and bad hygienic surroundings. Doubtless, these act as a predisposing cause, as in other diseases. Heredity may

* Read before Jefferson County Medical Society, Nov. 27, 1912.

have considerable influence, probably does, but there is no reason to think it is contagious.

Experimentally, gastro-intestinal and skin conditions simulating pellagra are produced in chickens by a continuous spoiled corn diet. The defibrinated blood of pellagrins injected into rabbits, guinea-pigs and monkeys seems to have negative results. Bacterial cultures of the blood the stools and the organs of pellagrins soon after death give no evidence of a parasitic cause.

The symptoms of pellagra in both its onset and its course are so varied that mistakes in diagnosis are likely. The abdominal, the nervous or the dermal troubles may any one come first, but probably they come oftenest in the order given. A pellagrin with a heredity afflicted with dyspepsia or intestinal troubles is apt to have first gastro-intestinal symptoms, whereas neurotic symptoms supervene if a poor nervous system has been the inheritance. A prodromal stage with vague neurasthenic symptoms may be recognized. The gastric symptoms are essentially those of a chronic catarrhal gastritis. There is likely to be a burning sensation in the mouth and stomach, a pinkish color to the mucous membranes and sores develop at the corners of the mouth. Salivation is frequent, supposedly due to the toxins of the disease. In the early stages lightning pains, simulating those of tabes are frequent. Flatulence and fierce eructations are common. The burning sensation is not due to excess of hydrochloric acid, for this is more frequently deficient. Diarrhea, impossible to control, but stopping suddenly, is a characteristic symptom. It is of centric origin and so compensatory in character, frequently watery and explosive. As the disease progresses it becomes inflammatory and often choleraic. The stools probably do not have any characteristic odor, as some claim, at least we have noticed nothing peculiar. The patients may become afraid of food and drink and so habitually take too little nourishment.

Among the nervous and mental symptoms early appear dysphagia, paresthesia, formications and tremors of the hand. Later come convulsive seizures, spasms and vertigo. The gait is not changed, except as modified by these and weakness. Usually all reflexes are exaggerated unequally. The psychic symptoms run the whole gamut. Attempts at suicide are frequent. There are dejection, sadness, fear of injury from external or internal causes and bodily changes. Mental decline is rapid. The manic state is not infrequent and may arise suddenly out of depression. Katatonia and delirium occur; and some

say dementia praecox is the most frequent psychosis. Delusion, hallucinations and somatic ideas are frequent.

Skin symptoms do not, as a rule, appear first, but without them a guarded diagnosis of pellagra should be made. The first is an eruption on the exposed parts, an erythema much like sunburn. It is most frequent on the shins, the extensor surface of the forearms and hands, the forehead and the back of the neck. It may form a girdle. It appears oftenest in May and June and disappears with cold weather. The skin lesion is typically symmetrical and sharply defined from the healthy skin, and if these two things are lacking something else should be thought of. As the disease advances the demarcation gradually fades out, first having gotten rough, scaly and chocolate tinted and sometimes showing a raw, bleeding surface. Sometimes the mucous surfaces of vagina and anus become sore. Eczema itches, pellagra burns. Any acute rash like ivy poisoning may exist on the same surface without modifying the course of the pellagrous skin lesion.

The pathology of pellagra is not fully worked up, and much of our knowledge comes from Italian and Egyptian sources. In general, the bodies are greatly wasted, the fatty and muscular tissues shrunken, the bones fragile. The liver, spleen and kidneys share in this wasting. Pulmonary and intestinal tuberculosis are very frequent complications. The muscular layer of the intestines is shrunken, but the mucous layer is congested, not ulcerated. Fatty or brown atrophy is common. There is a shrunken condition of the cerebral cortex and a degeneration of the posterior columns of the cord. The blood-vessels are sclerotic and sometimes the lateral columns also. Such patients are anaemic, emaciated and prematurely old. The autopsy findings may be those of complications, not of pellagra *per se*.

As to the course of pellagra, it is hard to say. Some cases run rapidly to the end, others last for five, ten or fifteen years, with recurrences, ending fatally. It is not a disease of the physically or financially poor, but robust patients with means and intelligence to supply proper food and attention give the best prognosis. The statistics are too scant to give an accurate prognosis. In this country the asylums, where most of the cases have occurred, give a death-rate of 75 per cent. In Italy, twenty years ago, when large numbers of pellagrins were treated in civil hospitals, the death-rate was given as 13 per cent., while the public health reports for the same country for 1905 give a death-rate below 5 per cent. on over fifty thousand cases. However, with

an early diagnosis and hygienic treatment instituted and rigidly carried out, the prognosis ought to improve. A case should not be regarded as cured until a full year has elapsed after the mental condition has become normal, the skin and gastro-intestinal symptoms cured and a liberal amount of muscle and fat stored up with cheerful spirits.

After reading all the articles obtainable, we put our two women patients on treatment of capsules containing about three grains each of quinin and salol, given after meals. One patient seems well now, the other had no chance for recovery, on account of emaciation, restlessness and pressure sores. The theory was that quinin would act as a tonic and possibly destroy protozoa or bacteria, the salol as urinary and intestinal antiseptic. The diet was the regular hospital fare, plus baked potato three times a day. The two men pellagrins both died, one being complicated by tuberculosis. They got only the hospital fare, and elixir of iron, quinin and strychnin in tonic dose. Whether our diet and medication had any influence we cannot say. Lombroso advocates Fowler's solution or arsenic tri-oxid in full doses, claiming good results and justifying it as a tonic and anti-fermentative. Niles, whose recent book gives most of our data, uses the same drug, or else sodium cacodylate and iron arsenite given hypodermically on alternate days. Dorsey of Atlanta gives potassium permanganate, two grains three times a day, on the supposition that the disease is due to oxidizable poison. Many use urotropin with apparent good results, the theory being that formaldehyd is set free and acts as a urinary and intestinal anti-

septic. Many other drugs, ordinarily used, are employed to combat irritating accompaniments, like sore mouth, diarrhea, anemia and rough skin. The various kinds of baths, electricity, massage and dietetic measures have been advocated, but they are in general, only such as would be employed in emaciated, feeble people. Easily digested nutritious, abundant food, with plenty of meat is advisable. The family of ten improved on good food and intestinal antiseptics. Avoid whisky and articles made of corn, also whatever causes flatulence. Conserve the strength, make the surroundings pleasant and congenial. A cold climate is an advantage.

The prophylactic measures at present are directed toward a well-cured, well-preserved supply of corn. These should take the form of laws governing its sale, transportation and grinding. In Italy, desiccatoria, both private and municipal, are established for drying the corn at small expense. It is only fair to say that the Illinois pellagra commission in a report recently issued, does not accept the spoiled corn theory, after a year of experiments and study on men and animals. It also claims that Sambon's theory fails, as pellagra exists where the similium rep-tans does not, and there is no pellagra in districts where this fly exists.

When, after much groping study and experimentation, this very interesting disease is understood and mastered, it may become as plain and unimportant as small pox after vaccination. Now it is of very great importance, from the standpoint of economics, sociology and preventive medicine and it behooves us all to look out for, study and report cases.

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EDITORIALS

**RECURRENT VOMITING IN
CHILDREN**

Within the past few years more and more attention has been given to a disease occurring in children, variously named cyclic, recurrent, periodical, fitful, lithemic, bilious or nervous vomiting, migrainous gastric neurosis, and vomiting with acetonemia or acetonuria. There has been a great deal of discussion as to the exact etiologic factor in the production of this definite syndrome and even yet the exact cause is not definitely known, although we feel that we are getting considerable light on the subject. Because of the common association of the symptoms with the findings of acetone in the urine, there has been a great temptation to ascribe the acetone as the causal factor of the disease. Others again have declared that the acetone is merely incidental and is the result of the violent and frequent emesis, plus starvation.

A most interesting contribution to the subject was that made by Mercer at the annual meeting of the New York State Medical Society.¹ It is of value both because of its comprehensiveness and impartiality. The author prefers the term recurrent to cyclic because of the lack of regularity of the attacks of vomiting implied by the term cyclic. He deals with the history of the disease, its distribution and occurrence and says that, although it cannot be classed as a very common disease, it undoubtedly occurs more frequently than recognized. The author's definition of recurrent vomiting is that of a provisional toxic neurosis, characterized by uncontrollable but self-limited attacks of vomiting, attended with great prostration and marked wasting, lasting for a few hours to several days, recurring at intervals of weeks, months or nearly a year, and tending to cease toward puberty or to be replaced in adult life by migraine.

Cases of this sort are most frequently seen in the middle years of childhood and are somewhat more common in girls than in boys. Attention is called to the factors of heredity, especially when characterized by neurosis, anxiety or overwork in school, exposure to cold, anesthesia, or blows on the abdomen. Some observers ascribe considerable importance to dietetic errors, and other causal factors mentioned are the exanthemata, bronchitis, rhino-pharyngitis, adenoids, refractive errors, appendicitis, intestinal toxemia, genito-urinary irritation, lithemia, acetonemia and intermittent hyperchlorhydria.

Howland and Richards, after two and one-half years of research work on the subject, believe that at the time of an attack, the patient's power of oxidation is temporarily lessened and he is unable to detoxify an excess of intestinal putrefactive toxins, shown by the presence of abnormal amounts of indican in the urine. With this diminished power of oxidation, the catabolism of carbohydrates becomes inadequate for the simultaneous and dependent combustion of fats with a resulting acidosis and the presence in the urine of acetone, diacetic acid or beta-oxybutyric acid. Sedgwick suggests that protein metabolism is also dependent on carbohydrate catabolism and finds in recurrent vomiting creatinuria associated with acetonuria. He refers to the light-colored stools, common to the attack, as an indication of hepatic insufficiency.

Other observations show acidosis occurring in many pathologic conditions, important in some and not in others, while it may be present in the apparently well. In the routine examination for acetone, in 662 unselected cases in London's Great Ormond Street Hospital for Sick Children, it was discovered in 408, or 61.6 per cent. of these patients. The cases comprised most of the diseases occurring in children between the ages of a few days and twelve years, and it was shown that the occurrence of acetonuria was not dependent on the nature of the disease, but rather the changes in the diet occurring on entrance into the hospital. Acetonuria was found to be present in 100 per cent. of infants changed from a diet of human milk outside the hospital to one of cow's milk within the hospital. A temporary carbohydrate indigestion produced a carbohydrate starvation, resulting in an acidosis, and in the majority of the cases the administration of dextrose would cause the acetonuria to disappear in about twelve hours. From this series, the question arose as to whether the syndrome resulted from dietetic changes or whether the nervous strain of hospital admission was the important factor in these little patients.

¹ New York State Journal of Medicine, June, 1913, pp. 313 to 317.

There seems to be a definite association from a neurotic viewpoint between recurrent vomiting and migraine, and acidosis has been found in both at the time of an attack when both were relieved by the correction of refractive errors.

Only about a dozen fatal cases have been collected and in these there has been found an acute liver degeneration similar to that of the post-anesthetic cases. The fact that the excretion of acetone by the lungs, kidneys or skin sometimes does not occur in the prodromal period, but only after the onset of emesis, and is present at and after the crisis, supports the view that acidosis is an incidental rather than a fundamental cause of recurrent vomiting.

Perhaps the most interesting feature of Mercer's article is his reference to the creatin in the urine associated with this condition, because at this age normally creatinin and not creatin is found in the urine. He cites a case of a 6-year-old boy, studied by Mellanby, wherein creatin was constantly associated with the attacks and several days before any other hint of an approaching attack was observed, the excretion of creatin gradually increased, while the output of creatinin decreased. Indeed, the onset of symptoms was thus predicted. On the other hand, acetonuria did not occur until the attack was fully developed, and the acidosis cleared up under the administration of glucose without any abatement of symptoms whatsoever. Again in an interval, acidosis was produced by cutting out glucose and other carbohydrates from the diet without bringing on an attack. Mellanby would ascribe the excretion of creatin to the action of some toxin, present through liver abnormality, which periodically became so pronounced as to make the child very ill. He says further that undoubtedly one of the most important liver functions is the neutralization of poisonous substances, either absorbed from the intestine or formed in the metabolic changes of the body.

Rachford accepts about the same etiology and assumes that the liver from various causes, chiefly overwork, more or less suddenly develops a functional incompetency which renders it incapable of converting ammonia and purin bodies into urea and destroys its so-called filtering functions, which normally render innocuous the fermentative products passing through it from the intestinal canal. As a result, both systemic and intestinal toxins escape into the general circulation and produce an auto-intoxication.

The author well remarks that the possibility of predicting an approaching attack by the presence and gradual increase of creatin in the urine deserves wider attention.

The symptoms in the course of the disease are too well known to require any review at this time, and it is likewise well known that the prognosis of the disease is good, only about twelve fatal cases having been reported to date.

Attention is called to the frequent difficulty in diagnosing the first attack of the disease and in differentiating it from many of the more common lesions.

A very interesting case of migraine, associated with the previous history of recurrent vomiting, is related.

As to treatment, it is well known that there are no measures known which will stop the vomiting in a well-developed attack, but the author recommends the alkaline treatment during the intervals, and at the onset of an attack, 10 to 30 grains of bicarbonate of soda being administered every hour until 100 grains have been given or 120 grains in twenty-four hours. In some hands this treatment has been remarkably successful, while in others it has entirely failed. The author very properly lays emphasis on the necessity of giving the bowel and liver as complete rest as possible at the very onset of an attack, and also suggests that if incomplete catabolism of fat with acidosis were a fundamental etiologic factor, an enema of dextrose might be indicated. Again, he says occasionally a hypodermic dose of morphin is serviceable. Needless to say, in the intervals everything should be done to improve the general condition of patients by removing from their lives such elements as are usually etiologic factors in recurrent vomiting, such as constipation, over-eating, improper diet, over-excitement, insufficient out-door life, eye strain, etc.

It is to be hoped that studies along the line of this rather obscure and baffling pediatric condition will be pursued to the point of establishing a definite etiology and therefrom a rational therapy.

ORTHOPEDIC TREATMENT OF ABDOMINAL VISCEROPTOSIS AND CHRONIC INTESTINAL STASIS

There are probably very few conditions in the whole field of medicine and surgery so difficult of satisfactory treatment from the standpoint of both physician and patient as those disorders dependent on malposition of the various abdominal and pelvic viscera. These people are proverbially chronically ailing and the relief that they get from one measure or another is nearly always transient in its effect. The result is that

from the very chronicity of their disability, they become persistently neurotic and life to them is a burden. It is now well recognized that the operation to fix a floating kidney, in the presence of a general visceroptosis, is usually worse than useless, and the problem becomes one that taxes the ingenuity of surgeon, orthopedist and internist.

In a paper read before the Clinical Congress of Surgeons of North America last November,¹ Goldthwait of Boston presented the subject from the standpoint of the orthopedist in a very convincing manner. His justification for the concern of the orthopedist in the problem of visceroptosis is based on the following facts: First, abdominal visceroptosis is invariably associated with disturbances of poise, resulting in weakness of the muscles and strain of the joints, manifested chiefly in the feet, knees, sacro-iliac joints and low back, and shoulders. Second, the imperfect poise associated with visceroptosis results in a gradual weakening of the trunk muscles, with the resulting lessening of this support for the trunk and viscera. Third, such imperfect poise commonly manifested by the droop of the shoulders and flattening of the chest, must of itself cause downward displacement of the abdominal organs with possible interference with their function, even though the organs and their ligaments were normal in the beginning. Fourth, many of the chronic joint diseases are probably due to the disturbed physiology, resulting from the visceral malposition, as well as to absorption from the gastro-intestinal tract. Fifth, treatment of the joint strains resulting from postures associated with visceroptosis, as well as treatment of the joint diseases, due to disturbances of the abdominal viscera, is incomplete and oftentimes hopeless, unless the viscera are so treated that undue strain is relieved and normal function restored. Sixth, the best health and greatest efficiency of the individual are possible only when the body is used in such poise that there is no undue strain or interference with any of the structures.

The usual classification of visceroptosis into the congenital and acquired forms is followed by the author, and the few general principles underlying the work of the orthopedist are outlined.

In the fully erect posture of the human figure, the chest is raised, the ribs flared at the bottom, the diaphragm high and a considerable space under the ribs in the abdomen is afforded for the stomach, liver and spleen to lie almost covered by the lower border of the ribs. Ample space is also thus afforded for the other viscera in the

lower portion of the abdomen. In this position the abdominal muscles are so contracted that the wall is firm and affords the best possible support in the front and sides for the various viscera and in this position, with the muscles tight and the abdomen flat, the total depth of the abdominal cavity at the level of the fifth lumbar vertebra represents only about one-third the full depth of the body and is practically the same all the way across, the lateral spinal spaces being filled with the wings of the ilia, the psoas muscles and the retroperitoneal fat. Above this point the cavity rapidly deepens, the lateral spinal spaces are free for the viscera, the kidneys being almost entirely posterior to the anterior portion of the spine, and the liver filling much of the lateral spinal space on the right side. With the body erect and the kidneys so placed in the lateral spinal spaces, surrounded by the retroperitoneal fat, that their inclination is backward and upward, there is no tendency for them to fall forward or sag downward. Again in such position, the liver is held in place partly by the kidney and the retroperitoneal fat below, but very considerably by the grasp of the lower ribs with the spine, entirely apart from the support received from the hollow viscera and the suspensory ligaments.

In the drooping position the shape of the abdominal cavity changes at once, the ribs being necessarily inclined downward with their anterior parts below the costovertebral articulations, and in the downward movement a corresponding backward movement of the anterior portion. Thus the subcostal space is materially lessened and the upper abdomen made much smaller than normal, and the diaphragm, being attached to the anterior portion of the ribs, must also move downward.

In such position with its resulting downward crowding of the liver and stomach and with the support of the body thrown wholly on the posterior muscles, the abdominal muscles relax, the abdomen protrudes, with the effect that not only is there less support for the organs, but the depth of the abdominal cavity is materially changed and all of the organs tend to assume a lower level. Likewise, with this lowering of the diaphragm, there results a dragging forward at the top of the kidneys and a downward pull on the right kidney by the liver and on the left kidney by the stomach. The continued pressure of these organs on the kidneys again results in the absorption of the fat surrounding them, and this portion of their support is also taken away.

1. Surg., Gynec. and Obst., June, 1913, pp. 587-595.

The colon being attached at the hepatic angle directly under the liver, in the downward displacement, has its movable portion forced downward with a resulting increase in the sharpness of its angulation, and it may possibly be shut off as the result of the force of the downward pressure. The same thing may result at the splenic flexure, resulting from the downward pull of the stomach. The small intestine likewise assumes a lower level partly from the relaxation of the anterior abdominal wall and partly from the pressure above.

In the fully erect posture the axis of the abdominal cavity should be almost at a right angle with that of the pelvic cavity, while in the droop of the body the axes are so changed that the thrust of the abdominal viscera is received much more directly into the pelvis, the effect of such pressure from above on the pelvic viscera, their blood-vessels and nerves, being obvious.

With such a review of the relationship of the organs in the different positions, it immediately becomes plain how futile is the attempt to relieve this general ptosis by operations performed on the kidney, stomach or bowel for the relief of the displacement of these organs without such remodeling of the body as will restore the normal relationship of the other parts. Indeed, the fixing of a single organ in place occasionally makes the adjustment of the organs as a whole more difficult than before and this has been strikingly shown in a case occurring in the author's own practice.

The rôle of the orthopedist in the treatment of this troublesome condition is in the attempt to restore the body as nearly as possible to the normal poise with the proper relationship existing in all parts. While in the congenital type the general shape of the special organs or the character of its ligamentous attachments cannot be materially changed, yet the best function of such organ cannot take place unless all unnecessary interference is removed. The symptoms of such type do not manifest themselves in early life, but develop later, usually as a result of the increase of the downward displacement of the organ from the long continued use of the body in the upright position. Relief of the strain is followed by improvement and retraction of the visceral ligaments exactly the same as takes place in a relaxed joint with strain removed. A proper understanding of the acquired features of poise disturbance and visceral sag makes for a good prognosis.

Occasionally the use of simple apparatus and special exercises will result in the correction of

the poise, while at other times more radical measures are needed, especially in severe conditions. Where there has been long continued muscle strain, rest can be afforded by a properly fitted brace, used not only to relieve the strain of the spinal muscles, but to accomplish the correction of the poise, the elevation of the chest, the forcing of the lower ribs forward and upward and to furnish support for the pelvis and lower part of the abdomen. Along with this apparatus, massage, stimulating bathing, etc., aid in hastening repair. After the disappearance of muscle fatigue, active exercises should be started, and the brace gradually omitted until such time as it may be supplemented by pelvic belts and lighter supports.

In the severe forms recumbency becomes absolutely essential, but even here the malposition may continue to be a disturbing factor and must be combatted by some such support as a leather jacket, molded from a cast of the body taken in full extension and with rib elevation. The improvement in the rest and sleep experienced by the patient wearing such a jacket at night is, according to the author, sometimes striking.

Where the condition is so severe as to demand recumbency both day and night, the deleterious effect of visceral displacement, even in this position, often requires that the patient be allowed but one pillow under the head and a small one under the back and frequent changing of position to the side or face. Indeed, sometimes the foot of the bed is raised, to still further assist gravity in the replacement of the organs; the hyperextended position or the so-called prone hanging one, wherein the patient lies with the pelvis and legs on a box, the thorax and head being lowered, may also be utilized to allow the abdominal organs to sag into the upper part of the abdomen. Such positions often aid the stomach in discharging its contents into the duodenum and also improve the function of the intestine to the point of better digestion and more normal defecation.

In the severe cases such recumbent treatment should be carried on to the point where there is a considerable replacement of the retroperitoneal fat, which can be determined by palpation through from front to back in the loin and over the lateral spinal spaces.

When the patients become ambulatory a brace is worn at first, and in females a carefully fitted corset over this. Special exercises are given to increase muscle tone, and with the increase in strength, the brace is omitted and a pelvic belt with low abdominal support substituted therefor.

This is needed for only a few weeks, after which a corset fitted to give firm support over the pelvis and low abdomen, with no constriction of the upper abdomen or lower ribs, is all that is required. With men the pelvic belt is worn until muscle strength is restored and correct poise so understood that there is no tendency to acquire a bad posture. Naturally, supervision of such cases must be prolonged in order to prevent possible relapses; proper occupation should be followed and correct bending of the body at the hips rather than in the trunk must at all times be insisted on.

With such intelligent management of these obstinate cases, a better prognosis is certainly possible than has heretofore been the lot of such unfortunate individuals. Loath as we are to make a final diagnosis of neurasthenia, yet when we have finally been driven to it there has often been in our own hearts the conviction that such individuals must unfortunately be condemned to a life of invalidism, and to this fate both physician and patient have become reluctantly resigned. A more promising prognosis will be welcome to a large number of both the profession and laity.

EDITORIAL NOTES

WE desire to call the attention of the various committee chairmen to the necessity of having their reports in promptly in order that they may be reprinted in ample time for distribution at the first meeting of the House of Delegates. This means that the committee reports should be in our hands in time for publication in the August number, that is, before August 1.

A SMOKER and social hour have been arranged for Wednesday evening of this year's Association session, and this will give an excellent opportunity for the various members to become more thoroughly acquainted, and prepare for the program of the following morning. This feature has always been a most enjoyable one, and an effort should be made by every member to be present at the smoker if at all possible.

AN effort has been made by the program committee to divide up the territory of the state as impartially as possible as regards choosing essayists and discussants. The officers and program committee feel that the selection has been made with sufficient care that every man who has been appointed either to read a paper or discuss one shall not only feel his obligation to be present,

but to have his subject so thoroughly in hand that his discussion shall be clean-cut, sharp, practical and strictly to the point. A moment's glance at the program will show that from the very first morning the sessions will be interesting throughout and sufficiently full to necessitate prompt attendance at the appointed time.

WE desire to call the attention of the essayists on this year's program of the State Association to the fact that they are expected to furnish *THE JOURNAL* with a fifty-word abstract of their papers in time for publication in the August number of *THE JOURNAL*. This feature will obviate the necessity of the essayists furnishing their discussants with synopses of their papers, and at the same time will afford the general membership an opportunity to so familiarize themselves with the subjects and the lines of thought of the various papers that most profitable discussions will ensue. In order that such abstracts shall appear in the August number, it will be necessary that the material be in our hands before August 1.

SECRETARIES of county societies will please recollect that the By-Laws of the State Association require that the credentials of delegates be in the hands of the Committee on Credentials before the time of the meeting of the Association. This requirement is made in order to expedite business and minimize confusion, and will be strictly enforced this year. The slipshod practice of making out credentials after arrival at the place of meeting without proper action of the society from which they purport to come leads to unpleasantness in most cases. As the delegates have been selected by this time, please see to it that their names are sent to Dr. A. Pierson, Spencer, Ind., who is Chairman of the Committee on Credentials.

IN this issue we are publishing the program for this year's annual session of the Indiana State Medical Association, to be held at West Baden, September 25 and 26, as completed, and feel that with such a program carefully presented and thoroughly discussed, the session should be one of the most successful in the history of the Association. No little credit is due to the Program Committee for completing the program sufficiently early to give all an opportunity to familiarize themselves with the material. While it is true that for each paper there are assigned two or more discussants, yet every member intending to attend the meeting should familiarize himself

- in advance with the program and go with the definite intention of presenting a thorough discussion of some one or more subjects in particular. In this way the meeting can be made most profitable and satisfactory not only to the gentlemen who have spent much time and energy on their papers, but to every member in attendance on the meeting.

To THOSE of the profession who may have, at some time or other, had a bone to pick with the American Medical Association, and gloatingly feasted on the pages of the vicious little magazine known as *Jim-Jam-Jems*, a sad disappointment is in store. The occasion is the recent conviction of the publishers, Sam H. Clark and Clarence Crockard, on a charge of transporting obscene literature through the United States mails, with a penalty attached for each of \$2,000 fine and two years imprisonment in the Federal Prison at Leavenworth. Nowhere, even in the famous Lydston diatribes of a few years ago, have we encountered such scavenger-like vilification and calumny as has appeared on the pages of this vicious little publication. One would think that the nauseating tone of material presented would suffice to condemn it to the wastebasket of any reputable medical man, yet some there are who have carried the publication about in their coat pockets, eagerly devouring the latest edition thereof and relating in choice terms to their friends the most up-to-date scandal or trumped-up charge against certain of the officials of the American Medical Association. It is encouraging to know that there are in the United States some hard headed jurists who have the common sense and the temerity to deal with some of the despicable things medical in the ways that are their just deserts.

We hope that the time is not far distant when the same radical treatment will be brought to bear on some of the other dishonest features prevalent in the modern profession, such for instance, as the fee-splitting graft.

It is a matter of considerable satisfaction to know that the convictions of those of the Indiana profession who are opposed to fee-splitting in any form are not peculiar to our own locality. A recent resolution passed by the House of Delegates of the American Medical Association at the Minneapolis session recommending expulsion of any member found guilty of this practice, is certainly a step in the right direction; but as yet we have not been able to ascertain that any provision has been made for following up the resolution and obtaining indisputable evidence against any mem-

ber. To make the resolution effective, there must of course follow some method of applying it, and we trust that the matter will be pursued in as thorough-going and forceful a way as it has been inaugurated.

With the data obtained from 6,000 circulars distributed in various parts of the country, a rather wide-spread knowledge of the prevalence of this evil has doubtless been gained. There is probably no power in the profession so able to combat this evil as the national organization, and we sincerely hope that they will continue in their efforts at an honest solution of the problem. In the meantime it behooves every state association to lend its aid and support in the matter; and personally, we would welcome an honest, open discussion of the subject at the September session. This perhaps should come by way of resolutions introduced into the House of Delegates, further action if necessary to be taken by the State Association as a body. The time is now at hand when we should go on record in this matter and settle it once for all. Our own campaign has been carried on in the light of our own convictions, and we have expressed our feelings as they seemed right and just to us, and have endeavored to be as impartial as could anyone who is perhaps primarily somewhat biased on the subject. There have been time enough and publicity sufficient for every member of the State Association to take an invoice of his own convictions on the subject, and why not go to the Association session with the hope and expectation that this vexatious problem will there be solved for good and always?

APROPPOS of the present engrossing subject of fee-splitting, the following newspaper clipping from one of the New York papers is both interesting and timely:

"Action against the secret division of fees, especially between physicians and surgeons, seems likely to be taken this year at the annual session of the American Medical Association. This is practically assured by the fact that the practice has at last — and none too soon — been brought forward for formal discussion. As it is utterly indefensible by anybody with even a decent regard for professional ethics, the only result among men of the quality of the delegates that can be expected is an official denunciation, with the menace of expulsion of all who can be convicted of the offense.

"That there has been in the past much fee-splitting between general practitioners and specialists is unquestionable. By the great majority of doctors, however, it has always been called a scandalous proceeding, and not a few suspected of indulgence in it have joined more or less loudly

in the chorus of condemnation. A few, a very few, physicians have ventured to excuse the habit to the extent of denying that it caused any harm to patients, but all the probabilities have been against them, and they have been obliged to reduce their profession to stark commercialism before they could make any argument at all.

"The claim that the attending physician should be paid when he assumes the responsibility of sending his patient to a surgeon or specialist of any kind, is well founded; but he should be paid by the patient and the whole transaction should be an open one. In the secrecy of fee-splitting lie its temptations and its dangers, and a confession of fee-splitting—a confession to the patient, that is—is almost unthinkable, so promptly and hotly and rightly would it be resented."

The appearance of such editorials in the better class of newspapers will do much at the hands of the public toward clearing the murky atmosphere of this despicable practice. It has been long ago predicted that if the profession itself did not take pains to purge itself of this and similar vices, the people would take it on themselves to perform this office for us. From this and similar publications, it would seem that the prophecy is being fulfilled.

We have before us a preliminary report of personal experiences with the Friedmann treatment of tuberculosis, by Dr. George Mannheimer, which is probably representative of the feelings of the big majority of the numerous physicians of this country who were fleeced by the wily Friedmann during his stay in the United States. Dr. Mannheimer gives as his reasons for making this preliminary report, the following: "First, I believe that every one who has had experience should publish the facts. Second, I believe that some colleagues might need information on the subject, coming through the accredited channels, to guide them when asked by patients as to the advisability of taking this treatment. Third, in some of my cases, the treatment with the Friedmann vaccine is finished. Fourth, innumerable premature misleading statements have been given out to the press from the Friedmann camp for advertising purposes, and the man has so conducted himself as time has gone on, that he forced everyone who has come in contact with him to assume the defensive."

The article contains a report of eighteen cases, not a single one of which has shown to date any definite improvement that could be reasonably attributed to the vaccine. In some, the disease progressed unchecked and in no instance did the temperature return to normal. Five of the eighteen developed abscesses, four of them small and one large, but excepting this case, the author

feels that he could not say that any distinct injury had been done by the vaccine. Nor could he determine whether the vaccine hastened the progress of the disease where it did occur.

It seems to have taken Dr. Mannheimer some time to have awakened to his present conception of the personality of Friedmann, whom he describes as so imbued with the efficiency of his remedy that he ignores all other well-established and tried measures. The author points out the utter lack of conception by Friedmann of the complexity of the problem of consumption, involving as it does not only the tubercle bacillus, but also mixed infection, heredity, environment, occupation, habits, character, financial condition, etc.

Friedmann's re-examination of patients is said to consist of palpating the site of injection and inquiries as to subjective symptoms, he never ascertaining the objective changes. The author eloses his contribution with an expression of considerable skepticism as to the success of such ambulatory treatment as is given by the Friedmann institute and emphasizes the necessity of confining the use of the vaccine to the hands of careful, skilled clinicians, well and impartially trained in handling the various problems of consumption.

Already the reports are coming in concerning the results of post mortems held on some of the cases treated by Friedmann, and the big majority of these go to prove that not only did the treatment fail to hold the process in check, but actually hastened it in some cases by means of a more rapid dissemination of the infection. Just such a report is now emanating from Berlin, and in addition tubercle bacilli were found at the site of injection. One might excuse the misdeeds of an individual operating on such a scale, from ignorance *per se*, but such ignorance, combined with the despicable, commercial instincts exhibited by this man, is entitled to nothing but contempt at the hands of the public.

This country can well congratulate itself that Friedmann has left its shores, and it is our prediction that never again will he return for the purpose of the prosecution of his nefarious practice. There is no denying the fact that as a nation we are more or less gullible, but doubtless Friedmann is keen enough to realize the truth of Lincoln's assertion that "you can fool all of the American people some of the time and some of the American people all of the time, but not all of the American people all of the time." A warm reception would certainly await Friedmann on his attempted return, but warmth of a kind not to his liking.

DEATHS

JOHN ABEL BALDWIN, M.D., of Amboy, aged 70 years, died at his home June 13, of apoplexy.

EPHRAIM O. THOMAS, M.D., a practitioner of Marion, Ind., for twenty-five years; died in the East Haven State Hospital, Richmond, June 13; aged 67 years.

HELEN KIDD McILVAINE, M.D., Northwestern University Woman's Medical School, Chicago, 1895; a member of the Indiana State Medical Association; of Huntington, Ind.; died in Denver, Colo., June 14 from pneumonia, five days after a surgical operation.

JOHN ROBERT JENKINS, M.D., Miami Medical College, Cincinnati, 1879; a member of the Indiana State Medical Association; a Confederate veteran; formerly a practitioner of Shelbyville and Hammond, Ind.; died at the home of his daughter in Evanston, Ill., June 15, from nephritis; aged 71 years.

JONAS J. GOOD, M.D., Rush Medical College, 1858; Chicago Medical College, 1868. During the time he was in active practice he was an honored member of Grant and Huntington county medical societies, also the Indiana State Medical Society. He died at his home in Warren, June 9, from paralysis of twelve weeks' duration; aged 81 years.

NEWS NOTES AND PERSONALS

INDIANAPOLIS

DR. EBERWEIN has been in the Methodist Hospital for a couple of weeks, suffering from sciatic neuritis.

DR. STRICKLAND accompanied the Indiana-Pacific Coast Automobile Tour as physician to the party.

DR. PAUL ROBINSON, while cranking his automobile, suffered a double fracture of the forearm recently.

DR. RALPH S. CHAPPELL, deputy coroner, left for New York, June 26, from where he sailed for Europe, where he expects to attend clinics in Paris, Vienna, Berlin and London.

DR. J. H. OLIVER and family expect to take a short trip abroad, and while in England to

attend the Congress of Medicine. Drs. Ross and Pantzer also expect to be in attendance at this Congress.

THE board of trustees of the Methodist Hospital have recently let the contract to Albert Von Spreckelsen for the construction of the basement story of the new pavilion to be built on the north side of the hospital. The completed pavilion will cost about \$110,000.

DR. T. C. KENNEDY, as the result of his observations at cancer hospitals in Boston, New York, Philadelphia and Baltimore, proposes to establish a cancer clinic in Indianapolis, using selenium, copper and radium in the treatment of this disease. He is awaiting the receipt of 40 m.gm. of radium to be used in this connection.

DR. A. C. KIMBERLIN and wife and party of relatives started Sunday, June 29, on a motor trip to Montreal, via Detroit, Buffalo, New York and Boston. Dr. and Mrs. Kimberlin will sail from Montreal July 26 for a month's trip abroad, attending the meeting of the Medical Congress in London.

THOSE in attendance at the American Medical Association from Indianapolis were: Drs. Wishard, Kimberlin, Burkhardt, Thrasher, Noble, T. B. and J. R. Eastman, Bonn, Garshwiler, Hadley, Gatch, Mann, Gann, Wynn, Dugan, Layman, Graham, Shimer, Morgan, Woods, B. Kennedy, Cregor. Drs. Noble, Garshwiler, Graham, Layman and Thrasher spent a week following the Association meeting in Wisconsin lake country fishing.

GENERAL

DR. A. J. LANE, formerly of Washington, is now practicing in Loogootee.

DR. M. A. ARMSTRONG of Kokomo has located in Lebanon for the practice of medicine.

DR. GEORGE W. CRAMM, who formerly practiced at Fulda, is now located at Hayden.

THE new Davies County Hospital, located at Washington, has recently been incorporated.

DR. J. R. MOUNTAIN of Connersville has sailed for London, where he will take post-graduate work.

DR. J. C. HAAR of Connersville narrowly escaped death a few days ago when he was struck by lightning.

THE fortieth annual session of the Northern Tri-State Medical Association was held in South Bend, July 8.

DR. A. A. WADE of Howe has gone to Cambridge, Mass., for a two-months post-graduate course at Harvard.

THE trustees of the Reid Memorial Hospital of Richmond have purchased a baby incubator for the institution.

THE physicians of Marshall County have adopted a new fee bill which is to govern their charges in the future.

DR. G. W. McCASKEY of Fort Wayne read a paper on "Renal Insufficiency" before the Cincinnati Academy of Medicine, April 19.

THE first class to graduate from the Mercy Hospital at Gary held its graduating exercises on June 13. Four nurses received diplomas.

THE club women of Peru are equipping the old Duke mansion for a modern hospital. The cost of remodeling the building is to be \$40,000.

THE annual alumni banquet of the Indiana University School of Medicine was held in Indianapolis at the Denison Hotel, June 6.

THE State Board of Medical Registration has received applications from seventy-five students this year who wish licenses to practice medicine.

THIRTY-FIVE clergymen of South Bend and Mishawaka have adopted a resolution calling for a medical examination of all persons contemplating marriage.

DR. WILLIAM O. MCBRIDE announces that he has succeeded to the practice of the late Dr. R. Parks White, Fort Wayne, and will occupy the same offices.

DR. JESSE P. FEAGLER and wife of Mishawaka have sailed for Vienna, Austria, where the doctor expects to spend several months taking a special course in surgery.

DR. ALBERT E. BULSON, JR., and family, have recently returned from an eastern motor trip. The party spent a week fishing in the lakes near Kingston, Ontario.

DRS. HUGH ELLIOT and JOHN T. PAXTON of Rushville, against whom a malpractice suit has been pending for some time, have recently been exonerated by the Shelbyville jury.

DR. C. E. CAYLOR of Pennville will leave in a short time for a trip abroad. He will spend considerable time in Berlin, where he will take up some advanced work in surgery.

DR. J. H. MORONEY of Winchester has been made a member of the Randolph County pension board. He fills the vacancy left through the death of Dr. James S. Blair of Lynn.

AT a recent meeting of the Fourth Councilor Medical Society the following officers were elected: Dr. Will E. Thomas, president; Dr. J. R. Pate, vice-president; Dr. F. C. Denney, secretary, and Dr. V. Sheperd, treasurer.

THE Jay County Medical Society has recently passed resolutions to the effect that the name of the physicians should not be associated with any case in the publication of any sickness, accidents or anything pertaining to the medical profession.

THE contract for the construction of the new hospital building at the Indiana School for Feeble-Minded Youth, Fort Wayne, was awarded June 7, the contract price being \$69,950. The hospital will consist of a main building and one wing.

DR. BURR CATLETT of Warsaw, Dr. Ara C. Badders of Portland, Dr. Ivan E. Brenner of Winchester and Dr. Edgar C. Webb of Indianapolis, all members of the 1913 class of the Indiana University School of Medicine, have been appointed internes at the Deaconess Hospital of Indianapolis.

AT the annual meeting of the American Association for Cancer Research, May 5, 1913, the following resolution (the report of the Committee on Statistics and Public Education) was unanimously adopted: It is the sentiment of this Association that: (1) The present instruction of medical students in the symptoms and early diagnosis of cancer is seriously deficient. (2) The medical curriculum should include special lectures in the clinical departments dealing specifically with this subject. (3) The universities should provide competent lecturers in this sub-

ject to address the local medical societies. (4) The associate members of the Association should be urged to take up the question of the proper methods of approaching the public on the subject of cancer. (5) The activities of this Association should at present be chiefly confined to the education of the medical profession. (6) The resolution shall be sent to the Deans of the medical schools and the Secretaries of the state medical societies in the United States and published in the medical press.

THE West Baden Hotel, 738 rooms, will be the headquarters of the State Association at the September session, and provide the meeting places for all the sections, as follows: General session and Medical Section in opera house; Surgical Section in ball room on third floor; House of Delegates in hospital dining-room; Eye, Ear, Nose and Throat Section in Parlor B, first floor; Scientific Exhibit and other displays will be made in the Atrium, which is an enclosed and glass-covered court, 200 feet in diameter.

West Baden offers the following hotel accommodations:

West Baden Springs Hotel, 738 rooms, American plan, \$3.50 to \$5.00 per day.

The Homestead, 150 rooms, American plan, \$2.00 to \$4.00.

Colonial, 40 rooms, American plan, \$2.00 to \$3.00.

Sutton, 40 rooms, American plan, \$1.50 to \$2.00.

SINCE July 2 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Luminal Tablets, 1½ gr., Merck (Merck & Co.).

Luminal Tablets, 5 gr., Merck (Merck & Co.).

Emetine Hydrochloride, Merck (Merck & Co.).

• Ampules Emetine Hydrochloride, Mulford (H. K. Mulford Co.).

Agglutinating Serum for the Identification of Bacillus Typhosus (H. K. Mulford Co.).

Agglutinating Serum for the Identification of Bacillus Typhosus, A (H. K. Mulford Co.).

Agglutinating Serum for the Identification of Bacillus Typhosis, B (H. K. Mulford Co.).

Aene Vaccine (Greeley Laboratories).

Colon Vaccine (Greeley Laboratories).

Gonococcus Vaccine (Greeley Laboratories).

Meningococcus Vaccine (Greeley Laboratories).

Pneumococcus Vaccine (Greeley Laboratories).

Ptyocyanus Vaccine (Greeley Laboratories).

Staphylococcus Albus Vaccine (Greeley Laboratories).

Staphylococcus Aureus Vaccine (Greeley Laboratories).

Streptococcus Vaccine (Greeley Laboratories).

Tuberculin B. E. (Greeley Laboratories).

Typhoid Bacillus Vaccine (Greeley Laboratories).

For reasons explained in the report of the Council (*Jour. A. M. A.*, June 21, 1913, p. 1974), the Council has voted to reconsider the acceptance of and to omit the following from New and Nonofficial Remedies:

Thiocol, Roche (Hoffmann-LaRoche Chemical Works).

Syrup Thiocol, Roche (Hoffmann-LaRoche Chemical Works).

At the request of the manufacturer, the Council has voted to reconsider the acceptance of and to omit the following from New and Nonofficial Remedies:

Diphtheria Antitoxin, U. S. P., Stearns (F. Stearns & Co.).

CORRESPONDENCE

FEE-SPLITTING

INDIANAPOLIS, IND.

To the Editor:—Please include me in the list of those unequivocally opposed to fee-splitting in any form. I can collect my own bills, and I don't care to be a collection agency for any one else; neither do I want pay for something I have not done. The fee-splitter is either a weakling, unable to earn a living as others do, or a crook with no regard for the right of those who place confidence in him.

I hope the time is not far distant when the practice of fee-splitting by either individuals or corporations, will by statute be a felony, punishable as is the crime of obtaining money under false pretense, in other transactions.

Yours very truly,

FRANK L. TRUITT.

RENSSELAER, IND.

To the Editor:—Publicity of the question of fee-splitting will be and is timely, and will do the profession much good—it will cause us all to collect for the particular work we do direct from the patient and it will finally tend to teach the public that the family physician deserves a fee for his diagnosis and his opinion relative to

the operation and the operator. Too long has the public seemed unwilling to pay for medical *advice*, but fairly free to pay for *medicine* and *surgery*. Really this one point has had much to do with the fact that we are even slightly tolerant with fee-splitting. It is needless to say that the writer is enrolled on the "anti" side.

M. D. GWIN.

INDIANAPOLIS, IND.

To the Editor:—I am very positively opposed to the fee-splitting business, though I see no way of stopping it.

Very truly yours,

GEORGE J. COOK.

RICHMOND, IND.

To the Editor:—There is one phase of the fee-division question that I have not seen discussed.

In many cases the general practitioner refers the patient to the surgeon, not for operation, but for a consultation as to the advisability of operation. The surgeon, who will divide the fee to get the case, will operate the case to get the fee, and in sending cases to such a surgeon we are deprived altogether of a consultation in its true sense, and this is even more unfair to the patient than to take from him money to which we are not entitled.

That the surgeon is often paid when the general practitioner is not, as stated by several writers in the current JOURNAL, is both true and unfortunate, but cannot be urged as an argument in favor of fee-division. The fact that a man owes us money does not give us the right to steal it from him.

The enclosed clipping seems to me to have a close relation to the subject.

• WANTED A SHARE

Proud and pompous the doctor was strolling down the streets, when he was spoken to by a poor woman.

"Good morning, sir," remarked the latter.

"Good morning, madam," replied the medico.

"I expect you are making a good thing out of attending to that rich Smith boy," suggested the lady.

"O yes, a fairly good fee," replied the doctor somewhat angrily.

"Well," whispered the lady, "I hope you won't forget that it was my boy Willie who threw the brick that hit him."—*London Answers*.

Very sincerely,

LOUIS F. ROSS.

SOUTH BEND, IND.

To the Editor:—Fee-splitting is a damnable, disreputable, dishonest, pernicious practice. It has many biproducts. It breeds dishonor and deceit. It makes friends insincere. It forces the doctor to play the part of a hypocrite to his patient. It juggles the diagnosis. It creates unfair competition. It makes men untruthful. It is practiced secretly, and any business that requires secrecy for its success is dishonorable.

Do not think that these words are the prattle of one of the innocent, for I have waded into the polluted waters far enough to see the slime and smell the stench of it all.

Fee-splitting is like arteriosclerosis—insidious in its development. The surgeon feels that he must meet competition. Doctor A learns that Doctor B of his or a neighboring city gives 25 per cent. So Doctor A makes it 30 per cent. Doctor B sees his professional clientele drifting to Doctor A, and he bids it up to 40 per cent. Doctor A awaits his opportunity and delivers the final blow, making it 50 per cent. Here it remains, as few surgeons will give more, and not many physicians have the gall to take more.

The ability of the surgeon in the above transaction is not considered, as it is purely a commercial deal.

What is the remedy? Honesty, frankness, publicity. It is nothing short of a farce for a surgeon of note to get up in medical society, and with a few misfitting remarks condemn the practice of fee-splitting when half of the members present have caught him with the goods.

I think every physician should be paid, and well paid, for services rendered in a surgical case. But why should he feel timid in rendering a bill for his services? Why should the surgeon be made the cats-paw to rake his chestnuts out of the fire? Why do physicians say to their patients that they will make no charge for their services when they accompany them to the surgeon, and then say to the surgeon that they cannot give their time and services for nothing?

There are as many men in the practice of medicine as there are in the practice of surgery who are opposed to fee-splitting, and it is not a question of money with them, but a matter of principle. If a man continues to do what his conscience and experience have taught him to be wrong he is either dishonest or a coward, and surely the Devil has danced the Tango and Turkey-trot till he fell exhausted after learning of some of the evils of fee-splitting.

Some seem to think they can indulge in fee-splitting and give all concerned a square deal—but register me from Missouri. It may be that

the grazing is better in the field of fee-splitting, where the grass grows tall and the underbrush thick, but its back to the stubble for me, where I can be in the open, where my friends can see me and know where I stand.

We love our friends not so much for what they are as for what they think we are, and we choose our friends more from qualities in ourselves than for qualities in them, and more from what they see in us than from what we really are.

C. C. TERRY.

SOCIETY PROCEEDINGS

PROGRAM OF THE ANNUAL SESSION OF THE INDIANA STATE MEDICAL ASSOCIATION

TO BE HELD AT WEST BADEN, SEPT. 25
AND 26, 1913

GENERAL MEETINGS

Thursday, 9:30 a. m.

Symposium—Chronic Bright's Disease.

(a) Symptomatology and Diagnosis. G. W. McCaskey, Fort Wayne.

(b) Renal Pathology and Urinary Findings. Henry R. Alburger, Indianapolis.

(c) Vascular Changes Secondary to Bright's Disease. C. F. Neu, Indianapolis.

(d) Eye Lesions. Albert E. Bulson, Jr., Fort Wayne.

(e) Influence of Kidney Lesions in Determining the Selection of Anesthetic and Surgical Risks, Operative Procedures and Post-operative Results. Miles F. Porter, Fort Wayne.

Discussion opened by F. B. Wynn, Indianapolis; H. H. Sutton, Aurora, and H. H. Martin, LaPorte

Friday, 2 p. m.

Symposium—Visceroptosis.

(a) Symptomatology. J. C. Sexton, Rushville.

(b) The X-Ray Diagnosis. A. M. Cole, Indianapolis.

(c) Medical Treatment. Walker Schell, Terre Haute.

(d) Present Day Status of Surgical Treatment. Edwin Walker, Evansville.

Discussion opened by L. Park Drayer, Fort Wayne; Geo. Denny, Madison, and J. R. Eastman, Indianapolis.

MEDICAL SECTION

Thursday, 2 p. m.

The Need of a State Detention Hospital for the Early Diagnosis and Treatment of Acute Mental Diseases. Fred M. Terflinger, Logansport.

Psychological Studies of Criminology with Suggestions as to Their Practical Application to the Criminal. D. C. Peyton, Jeffersonville.

Discussion opened by Paul S. Johnson, Sheridan, and Paul E. Bowers, Michigan City.

Care and Treatment of Pneumonia. James B. Maple, Shelburn.

Discussion opened by W. H. Foreman, Indianapolis, and W. F. Howat, Hammond.

Friday, 9 a. m.

Importance of a Blood Examination in Diagnosis. Chas. P. Emerson, Indianapolis.

Discussion opened by C. S. Bond, Richmond, and Harry Langdon, Indianapolis.

The Prevention of Epilepsy. W. C. Van Nuys, New Castle.

Discussion opened by Albert E. Sterne, Indianapolis, and Max Bahr, Indianapolis.

Colonic Alimentation. A. B. Graham, Indianapolis.

Discussion opened by C. H. McCully, Logansport, and A. C. McDonald, Warsaw.

The Relation of Typhoid and Paratyphoid Fever. Will Shimer, Indianapolis.

Discussion opened by B. W. Rhamy, Fort Wayne, and Chas. Stoltz, South Bend.

SURGICAL SECTION

Thursday, 2 p. m.

Manner of Growth and Surgical Treatment of Cancer of the Breast. W. D. Gateh, Indianapolis.

Cancer Prophylaxis. Murray N. Hadley, Indianapolis.

Discussion opened by M. I. Rosenthal, Fort Wayne, and Paul Martin, Indianapolis.

Abdominal Adhesions. Walter H. Baker, South Bend.

Discussion opened by A. M. Hayden, Evansville, and Paul J. Barcus, Crawfordsville.

Present Day Treatment of Fractures. J. H. Oliver, Indianapolis.

Discussion opened by Chas. P. Cook, New Albany, and J. V. Reed, Indianapolis.

Friday, 9 a. m.

Early Diagnosis of Ruptured Ectopic Pregnancy. Charles Sudranski, Greencastle.

Discussion opened by J. H. Weinstein, Terre Haute, and R. O. McAlexander, Indianapolis.

Hypernephroma. T. M. Jones, Anderson.

Discussion opened by Chas. G. Beall, Fort Wayne, and A. P. Roope, Columbus.

Symptomatology of Urethral Strictures. H. G. Hamer, Indianapolis.

Discussion opened by J. P. Salb, Jasper, and E. H. Ehrich, Douglass.

Relation of the Anesthetist to the Surgeon and Patient. A. C. Arnette, LaFayette.

Discussion opened by A. R. Holden, Columbus, and A. E. Guedel, Indianapolis.

EYE, EAR, NOSE AND THROAT SECTION

Thursday, 2 p. m.

Chairman's address. E. DeWolf Wales, Indianapolis.

Indications for Surgery of the Ethmoid and Sphenoid Labyrinth, with Report of Cases. James McCall, Jr., Terre Haute.

Discussion opened by Wm. F. Clevenger, Indianapolis, and L. C. Cline, Indianapolis.

Ocular Neurasthenia. John R. Newcomb, Indianapolis.

Discussion opened by Albert E. Bulson, Jr., Fort Wayne, and Geo. F. Keiper, LaFayette.

A Practical Consideration of Psychoanalysis and What It Offers to the Ophthalmologist and Otolaryngologist. J. Heitger, Bedford.

Discussion opened by D. W. Stevenson, Richmond, and L. D. Brose, Evansville.

Industrial Accidents. E. M. Shanklin, Hammond.
Discussion opened by H. C. Parker, Indianapolis,
and C. Norman Howard, Warsaw.

Friday, 9 a. m.

Contact Points of Ophthalmology and Rhinology
with General Medicine. Theodore Potter, Indianapolis.
Diagnosis and Treatment of Heterophoria and
Heterotropia. Frank A. Morrison, Indianapolis.

Discussion opened by W. F. Hughes, Indianapolis,
and J. H. Black, Lebanon.

Direct Laryngoscopy, Bronchoscopy and Esophago-
scopy with the Modified Bruening Bronchoscope.
D. W. Layman, Indianapolis.

Discussion opened by A. B. Knapp, Vincennes, and
K. K. Wheelock, Fort Wayne.

Report of a Case of Symptomless Melanotic Sarcoma.
A. C. Bartholomew, South Bend.

Discussion opened by W. N. Sharp, Indianapolis,
and W. J. Leach, New Albany.

Thursday, 8 p. m.

Lantern Presentation and Microscopic Demonstra-
tion Relating to the Cultivation of the Malarial Plas-
modia *in vitro*. C. C. Bass, New Orleans.

Lantern Presentation of Yellowstone Park. Charles
Truax, Chicago.

INDIANA STATE MEDICAL ASSOCIATION

The following is a list of those who have paid Asso-
ciation dues between June 1 and July 1, 1913. Errors
in name or address should be reported to Secretary
Combs, giving number of the membership card in
order to facilitate prompt detection of the error on the
membership records. This list as published is
included on the mailing list of THE JOURNAL, and
any member whose name appears on this list and who
does not receive his JOURNAL is requested to write for
a duplicate copy:

| NAME AND ADDRESS | COUNTY SOCIETY |
|--|----------------|
| Harvey C. Bowers, Seireleville..... | Clinton |
| Clark Cook, Fowler..... | Benton |
| D. F. Lee, Indianapolis, Willoughby Bldg..... | Marion |
| H. T. Wagner, Indianapolis, Odd Fellow Bldg..... | Marion |
| B. R. Richards, Indianapolis, 897 E. Woodruff Drive..... | Marion |
| George D. Kahlo, Indianapolis, White Sulphur, W. Va..... | Marion |
| A. L. Thurston, Indianapolis, Willoughby Bldg..... | Marion |
| Augusta Marshall, Indianapolis, Deaconess Hos- pital..... | Marion |
| F. R. Bannon, East Haven..... | Wayne |
| H. M. Gottman, Evansville..... | Vanderburg |
| H. H. Weer, Indianapolis, Hume-Mansur Bldg..... | Marion |
| H. A. Van Osdel, Indianapolis, 314 Board of Trade | Marion |
| Harry Boyd-Snee, South Bend..... | St. Joseph |
| C. S. Houghland, Milroy..... | Rush |
| J. D. Byrne, Depauw..... | Harrison |
| Thos. P. Govan, Richmond..... | Harrison |
| W. M. Davis, Worthington..... | Greene |
| J. B. Young, Worthington..... | Greene |
| R. A. Smith, Knightstown..... | Henry |
| R. A. Cole, New Castle..... | Henry |
| Noah Zehr, Fort Wayne..... | Allen |
| H. W. Deitrick, Union City..... | Randolph |
| T. N. Braxton, Boise City, Idaho..... | Martin |
| G. B. Grim, Evansville..... | Pike |
| John W. House, Indianapolis, 2168 Talbot Ave..... | Marion |
| E. S. Knox, Indianapolis, 1404 Hoyt Ave..... | Marion |

| | |
|--|------------|
| A. S. Jaeger, Indianapolis, Newton Claypool Bldg..... | Marion |
| H. G. Morgan, Indianapolis, City Hall..... | Marion |
| C. S. Goar, Leland, Fla..... | Marion |
| G. A. Whitledge, Anderson..... | Madison |
| J. N. Baughman, Evansville..... | Vanderburg |
| G. L. Marshall, Bourbon..... | Marshall |

INDIANAPOLIS MEDICAL SOCIETY

Meeting of June 5, 1913

Meeting called to order by Dr. Ferguson. Number
present, seventy.

Minutes of the preceding meeting read and adopted.

On motion of Dr. Dodds regular order of business
was suspended for the evening in order to give more
time for program.

Dr. A. C. Kimberlin, assisted by Drs. A. L. Thurs-
ton, J. D. Garrett, E. S. Knox and H. S. Thurston,
presented an interesting series of clinical cases.

1. H. S. Thurston—Myocardial degeneration second-
ary to a low grade nephritis.

2. A. L. Thurston—Valve lesion with musical mur-
mur.

3. J. D. Garrett—Athletic hypertrophy of the heart.

4. E. S. Knox—Possible beginning general paresis.

5. Dr. Kimberlin—Psycho-neurosis aggravated by
surgical treatment.

6. Dr. Kimberlin—Syphilitic neoplasm of the upper
anterior chest wall simulating aneurysm.

Dr. W. T. S. Dodds reported a case of acute tuber-
cular broncho-pneumonia with recovery. Skiagraphs
were shown of chest at three different stages of con-
dition.

Dr. W. N. Wishard reported two cases of complete
removal of external genitals for malignant disease
of penis.

The patients in all cases reported during the even-
ing were present.

Adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of June 17, 1913

Society called to order by president. Reading of
the minutes dispensed with.

Dr. E. B. Mumford read a paper on "Indigestion in
Infants."

The second paper was read by Dr. W. D. Hoskins,
"Present Tendencies in Infant Feeding."

"Fashions in feeding infants change, but such
changes are not due to caprice, each representing some
definite advance in our knowledge of digestion, meta-
bolism or the disease process. There is a distinct
tendency to place a higher value on mother's milk.
Many of the difficult feeding cases are due to too early
and too abrupt weaning. There are a growing tendency
and ability to make more accurate diagnoses as to the
causative factor in a given disturbance. To use less
complicated formulas in modifying cow's milk: to feed
lower fat and higher proteids, often in the proportion
found in whole milk; to recognize that sugar, instead
of being a harmless ingredient, may be the source of
severe disturbance of digestion and metabolism; to
favor a feeding interval of from three to four hours,
instead of two to three hours as formerly; to regard
some of the disturbances of nutrition attributed to
pasteurized milk as unproven, but to prefer raw milk
when it can be procured fresh and clean.

DISCUSSION

Percentage system of feeding should not be deserted. Our only fault with it was that the results could not be properly interpreted. Fats give more trouble than proteins. We are all too prone to wean babies early. High fats are good if they can be assimilated.

Dr. A. L. Wilson: Babies are very frequently weaned too early. There need be no hurry about this. Raw cow's milk makes the best substitute for mother's milk and it is the best food in the weaning of the baby.

Dr. A. W. Brayton: The child should not be permitted to sleep with the mother, as this leads almost invariably to too frequent feedings.

Dr. Mumford: Boiled milk is not good. Pasteurized milk has not been proved to be detrimental.

Dr. Hoskins: Rickets not a result of feeding. Scurvy results from improper food. Children fed on pasteurized milk should also be given fruit juices to prevent scurvy.

Adjourned. A. L. MARSHALL, Secretary Pro Tem.

Meeting of June 19, 1913

In the absence of the president Dr. A. L. Wilson presided. Forty members present. Application of Harry Shimp read for the second time.

Dr. H. R. Allen read the paper of the evening. Subject, "Scoliosis." He discussed the Abbott method of over-correction in extreme flexion and showed by a series of diagrams how the correction took place. Does not believe in the plaster cast as a means of retention, but favors the mechanical appliance, one of which he has designed to meet the requirements of these cases.

Dr. E. B. Mumford discussed the paper. Getting away from extension to flexion is a distinct step in advance in the treatment of scoliosis. Scoliosis is almost as frequent as bow legs and the serious nature of it demands our closer attention.

Dr. Burckhardt reported a case of decompression in a newborn babe, by means of an ordinary corkscrew.

Meeting of June 25, 1913

Meeting called to order by the president. Number present, twenty-five.

Dr. G. W. Guthrie was elected to membership in the society.

A letter was read from the State Board of Charities in reference to prison congress. Referred to the council.

The program consisted of reports of some of the members who visited the meeting of the American Medical Association, as follows: Dr. Burckhardt, on obstetrics; Dr. T. B. Eastman, on gynecology; Dr. J. R. Eastman, on surgery, and Drs. Shimer and Burage, on bacteriology.

Adjourned. A. E. GUEDEL, Secretary.

FORT WAYNE MEDICAL SOCIETY

Meeting of May 6

Society met in regular session in Assembly Room with fourteen members present. Minutes of previous meeting read and approved.

Clinical cases. Dr. Glock reported case with pus in conjunctival sac; pus smears showed pneumococci. Patient had just been to see her brother who was ill with pneumonia. Was treated with 25 per cent. argyrol, boric acid flushing, and ice compresses. Finally painted with 1 per cent. solution of silver nitrate.

Dr. Smith reported case of man who fell twelve years ago and injured his ear. Ear troubled him for several months and then ceased. Within last few days has had return of similar trouble; pain and soreness. On examination he succeeded in removing a piece of stubble, evidently rag weed, which had been in ear for twelve years.

Dr. Morgan: Patient, male, 26 years of age, came complaining of pain in left hypochondriac region. Bowels not moved for thirty-six hours. Temperature 102. Pulse dropped to 64. There was some induration over region of pain. Extreme prostration. Bismuth injection followed by x-ray seemed to show the bismuth up to the location of pain. Laparotomy revealed nothing. Blood normal and urine normal.

Dr. Bruggeman: Had patient with a deep phlegmon of the palmar fascia which was incised and drained. Perfect recovery from hand. Two weeks later dull pain in right hypochondrium. Urine normal. Blood showed slight leukocytosis. Examination negative. Lowest temperature from 101 to 103; no chill. Temperature is of the inverted typhoid type. Widal negative. Leukocytosis diminished.

Dr. Gross: Patient, female, had sudden pain in abdomen, extending into chest; vomiting. This occurred at 2 a. m. In afternoon of following day felt quite well; later in afternoon was called and on arrival found patient dead. Only symptom was a lot of undigested food stuff which was vomited.

Dr. Kimmell read a paper on "Urgent Surgery of the Female Pelvis."

DISCUSSION

Dr. Smith: My greatest trouble is in distinguishing between hemorrhage due to other causes, such as uterine polypi, etc., and that due to malignant disease. Thinks that perhaps it would be better to depend most on the microscopic examination of the uterine scrapings in cases of this type.

Dr. McOscar: Most of the time the urgency depends on discovery of the nature of the condition rather than the urgency of the disease.

Dr. Rhamy: The question of gonorrheal inflammation in the pelvis is an important matter as to diagnosis. In the female there are always a number of bacteria in the vagina. The micrococcus catarrhalis must be differentiated from the gonococcus. In an acute case the diagnosis is usually easy. It is of importance to obtain secretion from either the urethra, Skene's glands or Bartholin's glands. In malignant disease of the uterus the presence of discharge or hemorrhage cannot be too much emphasized. Early operation surely offers the only cure of the disease. In presenting scrapings of a curettage to the pathologist, be sure to get them all.

Dr. Calvin: I cannot quite understand how it is possible to have so much pathology due to gonorrhea without finding gonococci in the vaginal pus.

Dr. Kimmell closed the discussion.

Communication from Prosecuting Attorney Hilgeman, relative to action on part of state regarding those practicing medicine without a license, read. The consensus of opinion seemed to be that this matter should be referred to the Committee on Public Health and Legislation.

Bill of Secretary for \$4.30 allowed.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of May 13—Guest Night

Society met in Assembly Room with twenty-three members present. Meeting called to order by President. Minutes of preceding meeting read and approved.

The guest of the evening was Dr. J. H. Jacobson, of Toledo, who read a very interesting paper on "Cleft Palate," with lantern slide demonstration.

DISCUSSION

Dr. Rosenthal: The end results if persisted in are reasonably good in this operation. In the flap splitting operation the results are better in preventing the "button-hole" failure to close the opening. The Schaade modification of the Langenbeck operation by inserting strips of iodoform gauze through the lateral incisions to take up the tension on the flaps is a good procedure.

Dr. M. F. Porter: The methods after treatment of cleft palate operations are of more importance, almost, than the operative. Let these patients alone. I have never seen a cleft palate operation case which was benefited by stomach feeding, either through the nose or mouth. I have used all the methods of operation except the Brophy. Lately I have been using chromicized catgut sutures instead of non-absorbable sutures. The point of union which is most difficult to secure is at the junction of hard and soft palate. A suture which produces some pouting of tissue after it is tied is usually a suture which will not do good. I do not think that a stitch should be put through the skin in the closure of harelip. Subcutaneous suture is sufficient.

Dr. Duemling: Most difficulty is encountered in exposing field of operation. My success with this operation has been indifferent. Absolute hemostasis is necessary. I have been in the habit of using umbilical tape instead of iodoform gauze, as in the Schaade method of taking off the tension. I think that cutting of the flaps absolutely free is necessary. Pre-operative preparations of these cases is very essential. I have had good success with Dr. Allen's (Indianapolis) clock spring to lessen tension in hare-lip operations.

Dr. Jacobson, closing: I should be in favor of not using the tapes or gauze to lessen the tension. The Mayos have ceased to use them. They waxed their tapes to prevent capillary attraction, and found they were a source of infection.

A rising vote of thanks was accorded Dr. Jacobson. No business.

Society adjourned to Commercial Club for luncheon and smoker.

Adjourned.

G. VAN SWERINGEN, Secretary.

Meeting of May 20

Society met at St. Joseph Hospital with thirty-seven members present. Meeting called to order by President. By consent of society the order of business was changed. A communication was read from Dr. George J. Studer, relative to insertion in the local papers of an "ad" directing the attention of the public to the fact that Dr. Studer was limiting his practice to Genito-Urinary Diseases and Diseases of Women. Permission was granted Dr. Studer to insert such an "ad."

Communication announcing death of Dr. R. Parks White was read. Motion that committee be appointed to draft resolutions on Dr. White's death, and that flowers be sent. President appointed Drs. B. Van

Sweringen, Dancer and Rhamy. Motion carried that society attend funeral of Dr. White at the Scottish Rite Cathedral in a body.

Announcement was made of the serious illness of Dr. G. W. McCaskey.

Clinical night. Program in charge of Drs. M. I. Rosenthal, C. J. Rothschild and Albert E. Bulson, Jr.

Dr. Rothschild: Case 1. Chorea minor following acute tonsillitis; patient recovering on sodium cacodylate injections, 2 gr. daily.

Case 2. Poliomyelitis in a young boy, medullary type of disease predominating. Paralysis of lower extremities. Twelfth pair of nerves involved principally. Stammering speech; left internal squint; reflexes intact.

DISCUSSION

Dr. Bruggeman: The child has an ataxia of the cerebellar type and could not be clear of paralysis of poliomyelitis. Fever lasted three weeks. I am not certain of the nature of this condition.

Dr. Drayer: It depends very much on where the infection has spent its force as to what amount of muscular atrophy we will have. We have all grades of poliomyelitis where only a single muscle is involved.

Dr. B. Van Sweringen: The pathology of spinal poliomyelitis means destruction of motor cells in the cord; we have atrophy of muscle. I do not see where you could have a lesion inside the skull which would produce the symptoms of poliomyelitis.

Dr. Drayer: Has seen three cases of cerebellar tumor, two of which were operated, one post mortem. Cerebellar gait is a cross-legged gait.

Dr. Beall: It seems to me that one of the necessary things to clear up this diagnosis would be an ophthalmoscopic examination. This condition, if it were poliomyelitis, would not be in the sensory and motor tract.

Dr. Weaver: I would like to know why the diagnosis of meningitis was dismissed. There are still signs of it present in this case.

Dr. Dancer: Flexner has changed the knowledge of the pathology of poliomyelitis. The term, anterior poliomyelitis, is obsolete.

Dr. Rothschild, closing: Poliomyelitis need not necessarily involve all of the cord that is in the anterior horns, but may escape parts of the cord. This boy has not a spastic gait.

Dr. Rosenthal: I have on hand now two cases of fat necrosis, both following gallstone disease.

Case 1. A radical operation for cancer of the breast. Substernal gland resection. Removed by actual cautery under quinine and urea injection. This is probably a transplantation, but it may be septic.

Case 2. Young man, who gives the history of an attack of acute appendicitis which cleared up. Ten days later came in with an acute appendicitis. Had been given large doses of cathartics. On section the appendix was found gangrenous, small bowel ballooned and colon collapsed. Adhesion of the small bowel was in the pelvis. Almost the entire mesentery was adherent, and the small gut had slipped through and become obstructed.

I do not use hot saline sponges because on removal they feel cold and become so in a very few minutes. These produce more shock than dry ones. I make small incision in these cases, not because I wish to do an operative "stunt," but because the incision of large type is liable to produce post-operative hernia and increase the danger of infection. The belly is

the natural covering of the intestine and it is better than salt sponges. I wish to decry the use of cathartics following operations. The stomach tube with gastric lavage is better and safer than emptying the bowel by cathartic. Let the bowel alone.

Case 3. Exhibit of specimen of uterine fibroma, or fibromyoma, weighing 35 pounds. The tumor is a large sort of vascular growth springing from the posterior-inferior surface of the uterus. Tumor was very difficult of removal.

Case 4. Case of soft fibroma of uterus simulating pregnancy. These cases sometimes have amenorrhea, which makes the differential diagnosis more difficult.

Discussion, Dr. Porter: The points which the doctor went over are points well taken. I think the habit of removing lymph flakes from the bowel if the abdomen is to be closed is bad practice. I think the attitude assumed by the doctor in drainage cases is good. The tendency not to drain is not as universal as one would think. "When in doubt, drain," is still good teaching, but I think it should better be stated, with this addition, that we are not so often in doubt. I do not know of anything which can take the place of a Mikulitz drain in certain classes of cases. There are some cases which this drain will save that cannot be saved in any other way.

Dr. B. Van Sweringen: I am glad to see that the idea I had on the giving of cathartics in peritonitis, that is the suppurative type, is being accepted. I am inclined to believe that tympany is a conservative act of nature.

Adjourned to luncheon given by the sisters.

G. VAN SWERINGEN, Secretary.

DELAWARE COUNTY

The regular meeting of the Delaware County Medical Society was held at the Muncie Public Library, June 6th, President W. W. Wadsworth, M.D., presiding.

After the business session the members present were splendidly entertained by an illustrated address given by Dr. Maurice I. Rosenthal, of Fort Wayne. Dr. Rosenthal's subject was "Some Later Abdominal Operations," but he confined his remarks chiefly to carcinoma and to his modification of Wertheim's operation; introducing the subject by announcing the hopelessness of great majority of cancers of cervix presented for treatment, and the discouraging results that every surgeon who engages in this line of operation must certainly have.

While the mortality from the Wertheim operation, comprising removal of entire uterus, upper vagina, parametrium, pelvic glands and connective tissue, is high, the excessive rate is due to the fact that patients formerly considered beyond possibility of surgical aid are now operated on; i. e., patients are considered operable under this technic when any other would prove disastrous. In Wertheim's clinic there was a mortality of 30 per cent. in the first 100 operations. In the last 100 reported cases the mortality was only 9 per cent. This gain is credited to improved technic, operative skill and anesthesia. Cases without recurrence after five years are considered cured.

Carcinoma is seldom if ever "recurrent." There is nothing to prevent a person, who once had a cancer, having another, but the so-called recurrence is due either to scattered infection at the time of the opera-

tion by operator, or to diseased tissue that was not removed. This remaining tissue is stimulated to greater activity by operative disturbance, the manipulations in some instances increasing malignancy. Stitch-hole cancers and reimplantations by knife are within experience of most operators.

There are many things about carcinoma that we do not know, but some things we do know. Cancerous tissue removed from one individual and transplanted into another will grow. Healthy tissues must be protected from contamination. "Metastasis" oftentimes is implantation carcinoma. Malignant tumors are infectious. Even recurrent carcinoma is not necessarily metastasis, for two or more types may coexist in the same patient. Carcinoma is originally a local disease, therefore early radical removal cures. The disease may later become constitutional, but even then the focus of infection can be removed the same as a tubercular lesion.

No operator would amputate a breast without considering the neighboring structures and glands, and just so, in the near future, will no operator excise a carcinomatous uterus without considering the parametrium and pelvic glands except in early stages of more benign cancers of uterus.

The unfavorable results in operative treatment of cancer of cervix of uterus are because a portion of involved tissue is left behind, manifesting itself again in cancer of vault of vagina. Inflammation plays an important rôle in cancer of the hollow viscera. Many cancers of uterus, when bladder or rectum may be involved, present adhesions that are not malignant, just inflammatory. The parametrium is a favorable point of secondary involvement. The malignancy of a growth may often be determined by its location, points of friction and structure of its attachments. Carcinoma of fundus is comparatively benign.

Dr. Rosenthal deplored the fact that there are no "early signs" of uterine cancer. Pain and a stinking discharge, more or less bloody, that may first arouse suspicion of either patient or physician, are not early symptoms, for by this time there is destruction of tissue and the parametrium may be involved.

In operation for cancer of the cervix tubes and ovaries may be left without danger, for lymph channels are in the other direction. Connective tissue may be strangulated by scar tissue and malignant processes be retarded and held latent for eight or more years. In the aged, malignancy is not so great, for the lymphatics are somewhat atrophied. Syphilis very frequently simulates carcinoma. KI has more than once caused a supposed cancer to disappear.

"Since early cancer of the corpus and portio vaginalis is of the less malignant variety, the vaginal route should be employed. For cancer of the portio uteri, the malignant carcinomata, the Wertheim operation should be operation of choice, and in all advanced carcinomata an attempt should be made to rescue patient from the 100 per cent. mortality of either the vaginal operation or of no operation at all, since many cases of so-called inoperable cancer easily come within range of this technic."

Dr. Rosenthal recommends and uses actual cautery in his cervix operations.

DISCUSSION

Dr. C. M. Mix: Carcinoma left alone is fatal. Results of surgery are hard to forecast, for some

patients we suspected would die get well, and some who ought to recover, die. Cancer of fundus is, from every viewpoint, a different proposition from cancer of cervix.

Dr. I. N. Trent spoke of satisfactory results of early operation and correlation and confusion of cancer and syphilis, citing several illustrations.

Dr. Rosenthal was given a rousing vote of thanks.

H. B. FAIR, Secretary.

DUBOIS COUNTY

The Dubois County Medical Society met the third Tuesday in June at the home of Dr. O. A. Bigham of St. Anthony. After dinner the session was called to order by President Lukemeyer. Dr. Bigham introduced Dr. Schachner of Louisville, Ky., who was his guest.

Dr. Schachner read a paper on "Surgery of the Head." He emphasized several points, namely: that cerebral decompression is an essentially palliative step that should never displace more radical measures where possibilities of the latter exist. It is indicated wherever we have increasing intra-cranial tension producing ocular disturbances, headache, vomiting, vertigo, ataxis, motor and psychic derangement. Tumors and cranial injuries are the chief conditions responsible for the increasing intra-cranial tension.

Seventy-eight per cent., according to several of the foremost investigators, represent the frequency of choked disc in brain tumors. In tumors involving the corpora quadrigemina and crura it occurs in every instance. Tumors of the cerebellum are next in frequency. It is least common in tumors of the pons, medulla and corpus callosum. The same holds good of tumors of the meninges and cortical area. Where the tumor is in the cerebrum and not involving the motor area, the decompression should be sub-temporal. If it does not involve the motor area, it should be pre-tentorial, but not sub-temporal, that is, decompression should occur over the site of the tumor provided it is not in the motor area. Where the tumor is below the tentorium, there should be a sub-tentorial or sub-occipital decompression. Referring to the Kocher operation for epilepsy, the essayist emphasized the fact that the prevailing opinion among many that there is no demonstrable lesion either macroscopic or microscopic in epilepsy is unwarranted. The majority of cases are not without some demonstrable lesion. Kocher proposed his operation on the theory that the epileptic seizures are provoked by a condition of intra-cranial hypertension.

This has been confirmed by House, Hitzig and Stadelman. The intra-cranial tension, according to House, is due to the transient increase in the cerebrospinal fluid. This increase produces an intra-cranial hypertension that terminates in a disturbance of the cortical equilibrium. The operation involves the formation of the valve which is sufficiently decompressive in its nature as to neutralize the transient intra-cranial pressure.

Referring to trifacial neuralgia, the disturbance is most likely an ascending neuritis that is capable of cure by a peripheral operation provided it is early enough and a sufficient amount of the nerve has been removed. It occurs most commonly in the second division, then in the third, and perhaps never begins in the first, or never occurs in the first division until

late in the disease [the divisions were classed as (a) compression, (b) Cother's operation for epilepsy, (c) surgical measures for the relief of tri-facial neuralgia]. Whenever it is bilateral, which is extremely rare, it is due to a central condition. The injection of alcohol is indicated where the subject is not a sufficiently safe surgical risk for an ether administration. Where it involves all three divisions the excision of the Gasserian ganglia is indicated.

The paper was illustrated by charts, photographs and specimens.

The members of the Society were so highly pleased with the lecture that it extended Dr. Schachner a hearty invitation to come again and give them a paper and he promised to do so. A vote of thanks was extended to him as well as Dr. and Mrs. Bigham for the royal entertainment given the visitors. It was decided that the Society would again meet in St. Anthony.

The next meeting will be held at Birdseye, the third Tuesday in July.

Adjourned.

E. A. STURM, Secretary.

ELKHART COUNTY

Meeting of March 6, 1913, was called to order by President B. F. Kuhn at 8 p. m., in Dr. Krieder's office, Goshen.

Communication from officers of State Association concerning bills before State Legislature were read. Motion made and carried that Society endorse replies sent by secretary. Bills incidental to annual meeting and two other clerical bills were allowed.

Dr. A. C. Yoder in his paper on "Injuries of and Near the Wrist" demonstrated the various articulations and tendons with drawings and illustrated them on the skeleton. He went thoroughly into regional anatomy, especially noting normally unequal level of styloid processes of ulna and radius. He differentiated between joint fracture and fracture dislocation. Contrary to the old view that most wrist injuries were dislocations, it is shown that fractures are much more common and that fractures of the lower end of radius constitute 10 per cent. of all fractures. Pouteau, Colles and Dupuytren were the first to demonstrate the true nature of wrist injuries.

He described Colles' and reversed Colles' or Smith's fractures; Barton's and reversed Barton's fractures. There are epiphyseal separation of radius; low fracture of both radius and ulna; greenstick fracture of both bones; fracture of ulnar styloid and fracture of any one of the eight carpal bones. The scaphoid is most frequently fractured.

Prefacing his case report, Dr. Yoder named the following dislocations, all of which are rare: at radio-ulnar joint, the ulna dislocated forward, backward, inward and downward; at radio-carpal joint, dislocation backward, forward or outward; at medio-carpal joint, dislocation backward or forward; single dislocations of any of the carpal and metacarpal bones.

Mrs. R. on Feb. 28, 1910, fell down stairs from first floor of her residence to basement. She struck her wrist so violently that a deformity resulted. Examination revealed a dorsal wrist deformity and forward dislocation of lower end of ulna which was easily reduced. When pressure was released, however, subluxation recurred. The deformity of the back of the

hand persisted in spite of all attempt at reduction. Splints were applied and rest for several weeks was advised. In spite of this treatment both deformities persisted. Patient was then fitted with a wrist band and instructed to use hand. At present time the patient, who was presented before the meeting, shows some hyperextension and somewhat limited flexion. The affected wrist is nearly as strong as the right wrist. Radiographs, plates and stereoscopic views of the wrist joint were shown.

Diagnosis is summed up as follows:

1. Fracture and disappearance of ulnar styloid.
2. Recurrent forward dislocation of ulna, with probable rupture of triangular fibrocartilage.
3. Subluxation, dorsally, of the radio-carpal joint.
4. Crowding together of many of the carpals.
5. Possibly a slight subluxation of semilunar and os magnum.

This the third case of the kind reported, the other two having been described by Cotton and G. H. Monks. It is inadvisable to carry out any further treatment.

Discussion, Dr. C. W. Haywood, Elkhart: Finds evidence of a dislocation between os magnum and semilunar as well as the ulnar-radius subluxation.

The second paper was presented by Dr. Krieder, Goshen, on "Subsidiary Aids to the Treatment of Disease."

The massive and nauseating doses of medicine of past generations have become obsolete. Blood-letting was a form of therapy used for almost every morbid condition. In the midst of this chaotic and crude state of the treatment of disease a school arose which had for its underlying principle the dilution of drugs to the tenth degree and their use in varying potency. Just as this doctrine was at the time renounced by the old school so are various new forms of treatment looked on questioningly at the present time. Different men high up in the profession pin their faith to a certain form of treatment and use this particular form to the near exclusion of others. So one group uses drugs, another group believes in medical nihilism. Abbott puts his whole trust in alkaloids; Trudeau prescribes out-of-door life and forced feeding; Kellogg maintains as his hobby the vegetable diet. This doctor uses electricity, another use photo-therapy, still others the x-ray, the Finsen light and the leucodescent light. There is the rhythm specialist, the hydro-therapist, the man who uses serum-therapy, organo-therapy, and zymo-therapy. This wide distinction and variation in the method of treating disease has given opportunity to various cults and so have arisen Christian Science, Dowicisms, the Emmanuel movement, osteopathy, chiropractic, mental or suggestive therapeutics, the official philosophy and spondylo-therapy.

Dr. Krieder briefly described these various systems and laid some special stress on the last named. Claims that by concussing the seventh cervical spinous process, reflex contraction of the heart and blood-vessels is invoked. He has taken instruction in this specialty from Dr. Abrams of San Francisco and believes in its efficacy in relieving conditions of variable origin.

Dr. Krieder has for a long time been the staunch advocate of the Official Philosophy. He reads the *facies sympathetica* to determine the cause of illness. Insanity might be exterminated if official irritation and impinged nerve terminals in insane patients were relieved. He believes that on this philosophy rests the very soul of mankind.

DISCUSSION

Dr. W. B. Page, Goshen, favorably impressed with the philosophies as expounded by Dr. Krieder.

Dr. C. W. Haywood, Elkhart, believes that the chief purpose of the physician is to relieve human suffering. The pathology may be obscure, but if a certain treatment relieves there is no excuse for not using it. For every organic lesion it is possible to find a sensitive place in the spine.

Dr. F. A. Benham, Elkhart, wished to contrast Dr. Yoder's paper with Dr. Krieder's paper—the former essayist noted a condition which has been found but three times in the history of surgery; the latter avers that for cases seriously and dangerously ill he has procured relief—a result sought by the patients coming to him. He hoped more enthusiasm may be shown in Dr. Krieder's subject.

Dr. C. L. Dreese, Goshen, cited case having received tapping of the seventh cervical vertebra for heart trouble which was entirely relieved. Look for all the good in medicine and allied sciences.

Dr. D. L. Miller, Goshen, fears the danger of going to seed in all the subjects mentioned. Cited a case who became deaf and who was relieved by being severely shaken up in a runaway accident.

Dr. C. W. Kirby, Goshen, believes that these cults are limited in their application.

Dr. Snapp, Goshen, is of the "Old School"—doesn't believe in spondylo-therapy. Gave the subsequent history of one of the cases mentioned by Dr. Krieder as having been cured by tapping of the seventh cervical vertebra and explained that the patient had suffered a painful relapse of her former heart disease.

Dr. J. C. Fleming, Elkhart: DuBois says all poets are hysterical. Three things should be emphasized: (1) We should know more pathology; (2) the cases reported cured by the various cults are really cured by psycho-therapy. Physicians should study methods of psycho-therapy. The sufferings of incurable cases even are amenable to this treatment. Looked over review of Walsh's book on psycho-therapy. Walsh cites case of a woman sick with an incurable disease to whom he gave three or four weeks' relief from suffering by applying these principles. (3) Osler some years ago addressed the graduating class at the University of Pennsylvania on "Equanimity." He emphasized importance of maintaining mental equilibrium, which allows one to be tolerant with ideas not agreeing with his own.

Dr. A. C. Yoder, Goshen, agrees with Dr. Fleming. A lady was once sick with inflammatory rheumatism—too sick for an osteopath—she wanted a real doctor. We must know more about pathology. Osteopaths to prove their contentions must demonstrate results to us from a group of cases. Neither osteopaths nor chiropractors have added anything to science, nothing but the tricks of their trade. We often make mistakes by not suggesting baths and massage. Anyone may be made to feel better by a massage and by having some time spent on him.

Dr. I. J. Becknell, Goshen, believes every medical school should have a chair of osteopathy.

Dr. C. W. Haywood, Elkhart: Thinks he is misunderstood. Does believe in studying more pathology but does believe in relieving cases by various means, even though the pathology is not known.

Dr. W. B. Page, Goshen, does not believe in embracing all these cults. Dr. Abrams says it is pos-

sible to be symptomatically cured and not absolutely cured. Cited case of iritis now symptomatically cured. Should investigate these methods and use them.

Dr. B. F. Kuhn, Elkhart: Should not wait to use a remedy until the reason why is discovered. Peruvian bark was used long before its pharmaceutical properties were known. Osteopaths stir up in the minds of the patient ideas of conditions which do not exist.

Dr. W. B. Krieder, Goshen: Let pathological basis of spondylo-therapy be established.

Dr. M. K. Krieder, Goshen, closing: Every dose of Dr. Snapp's medicine made the patient in question sick. Dr. Krieder tapped the seventh cervical vertebra and the heart calmed right down. He repeated the treatment next day, finding arrhythmia, with same result. Reported case of asthma relieved by treatment of nerves. What is it that does the good?

Adjourned. JAMES A. WORK, Jr., Secretary.

FOUNTAIN-WARREN

The quarterly meeting of the Fountain-Warren Medical Society was held in Kingman June 5.

Dr. Joseph Rilus Eastman of Indianapolis presented an exhaustive paper on "Differential Diagnosis of Bladder Neck Lesions."

Dr. George F. Butler of Kramer, and Dr. Robert E. Johnson of Hedrick, were admitted to membership in this Society. The total membership in this Society is now thirty-six, which is the largest number of members in the history of the Society.

The next meeting will be held at Veedersburg, September 4.

Adjourned. A. M. SULLIVAN, Secretary.

JACKSON COUNTY

The Jackson County Medical Society met in the city library at Seymour the first Thursday in June. Ten members were present. The meeting was called to order by President H. R. Luckey.

After the minutes of the May meeting were read and approved, Dr. G. G. Graessle presented a paper on "Diagnosis and Treatment of Intestinal Obstructions." The subject was ably presented and thoroughly discussed by those present. The consensus of opinion was that the deferring of an early operation in these cases usually resulted disastrously, whereas recovery was the rule in early operations if no malignant condition existed.

A case of pellagra was reported in which the patient died.

Adjourned. L. B. HILL, Secretary.

JENNINGS COUNTY

The regular monthly meeting of the Jennings County Medical Society was held in the Society's room Wednesday afternoon, June 25. Ten members present.

Dr. Banister presented a very interesting clinical case of endocarditis following articular rheumatism in a boy 11 years of age.

Dr. Danbenhyer reported the use of anti-streptococcic serum with good results in the case of erysipelas which he had brought before the Society at the last meeting.

Dr. McFarlin reported two very interesting cases.

Drs. D. N. Hayden of Vernon, and Geo. W. Cramm of Hayden, were elected to membership. At the present time there is not a practicing physician in the

county who does not belong to the Jennings County Medical Society.

Drs. Richardson, Danbenhyer and Green were appointed as a committee to investigate the standing of itinerant physicians who visit this county. It was decided to have the annual picnic at Deputy some time the latter part of August.

Adjourned. JOHN H. GREEN, Secretary.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held in the Crown Point Public Library Thursday evening, June 12, 1913, at 7:30 o'clock, Dr. Weis presiding, with ten members present. The minutes of the May meeting were read and approved, Dr. Fox serving as secretary pro tem.

Dr. Weis reported the complete recovery of the case he had reported at the February meeting of this society. Drs. Schaible and Fox reported cases of empyema following pneumonia and measles, both of which terminated fatally.

Dr. J. W. Iddings then read the paper of the evening, the title being, "Artificial Feeding of Infants."

The newly graduated doctor finds that he is woefully weak on actual knowledge in this matter. The essayist was taught the Holt percentage method of withdrawing one-third or one-half of the top of a quart of milk and feeding a certain amount, based on the age of the child. The fact that so many babies survived this method of feeding can only mean that their resistance was greater than our ignorance. I believe that many of our difficulties have been due to the fact that we have failed to see that each infant is a law unto itself and must be treated as such. Herd milk is better than that from one cow. Feeding of cow alters composition and digestibility of the milk to a great extent. Sanitary methods in collection of milk, and care used in handling the product are most important factors to be considered in the question of infant feeding. Very few of the cows in country herds are tuberculin-tested. Milk should be quickly cooled after collection. The average milk sold in cities reaches the consumer twenty-four to thirty-six hours after collection, and the bacterial count will average 100,000. The more common pathogenic bacteria found in milk are typhoid, tubercle and diphtheria bacilli. The presence of the non-pathogenic bacteria are not so much a direct source of danger, but cause decomposition of the milk. Pasteurization of the milk advised. Boiled milk is almost universally used in Germany and France, and statistics show less scurvy and rickets than in this country. The essayist frequently advises that his cases be given boiled milk and has observed no bad results. Brennan, in a recent article, strongly advocates boiling of the milk, and shows that the casein is thereby finely divided and causes less disturbance than raw milk. The custom of adding lime water or sodium bicarbonate to render the milk alkaline is of little value.

In preparation of the milk, absolute cleanliness is most essential. The bottles without a neck are best. A twenty-four-hour supply should be made up at one time. The water used as a diluent is boiled. The cereal water, if used, is boiled from one to one and one-half hours. Regular and proper intervals are an important point. When using cow's milk three hours is the proper interval. One or two feedings are given during the night.

During the first twenty-four hours, water sweetened with saccharin is the only food given. During the remainder of the week one-third of milk is added. During the second week a small quantity of malt sugar may be added. After this time the amount of water is gradually lessened. In feeding an older baby on cow's milk it is best to begin with a small quantity.

Dr. Scull, in opening the discussion, condemned over-feeding. Recommends the early administration of vegetable soups.

Dr. Schaible decried the tendency of present-day mothers to find a substitute for natural feeding, if possible. Commends the essayist in the matter of having a full day's supply of milk prepared at one time.

Adjourned. E. M. SHANKLIN, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session at the Plymouth city hall June 26 at 1:30 p. m. The minutes of the April meeting were read and approved, there having been no meeting in May. Eleven members were present.

Dr. Wiseman read a paper on "Abnormal Presentation." He emphasized the point of making a diagnosis of the presentation early in every case of labor.

Dr. Stevens read a paper on Appendicitis. He said that every case of appendicitis should be operated on during the first twenty-four hours if possible.

Dr. Nusbaum read a paper on Gall Stones. The doctor said there was no cure for gall stones after they are formed except removal by operation. Medical treatment may give relief of symptoms.

Nearly all present took part in the discussions of these excellent papers.

Adjourned. A. A. THOMPSON, Treasurer.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Clinical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 North Dearborn Street, Chicago Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

MAGNESIUM PERHYDROL.—A name applied to magnesium peroxid (see New and Nonofficial Remedies, 1913, p. 185). Merk & Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

MAGNESIUM PERHYDROL, 25 PER CENT.—A mixture consisting essentially of magnesium peroxid, magnesium oxid with water of hydration, containing not less than 25 per cent. of magnesium peroxid. Its properties, actions and uses are the same as those for magnesium

peroxid. Merk & Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

MAGNESIUM PERHYDROL, 25 PER CENT. TABLETS, 7½ GRAINS.—Each tablet contains magnesium perhydrol, 25 per cent., 0.5 gm. Merk & Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

LUMINAL.—(For properties, actions and uses see *Jour. A. M. A.*, May 17, 1913, p. 1541.) Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

LUMINAL TABLETS, 1½ GRAINS.—Each tablet contains luminal 0.1 gm. Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

LUMINAL TABLETS, 5 GRAINS.—Each tablet contains luminal 0.3 gm. Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

LUMINAL-SODIUM.—(For properties, actions and uses see *Jour. A. M. A.*, May 17, 1913, p. 1541.) Farbenfabriken of Elberfeld Co., New York (*Jour. A. M. A.*, June 7, 1913, p. 1792).

SOLUTION AMYLENE-CHLORAL (50 PER CENT.) KALLE.—A 50 per cent. solution of a amylene chloral, a combination of chloral with amylene hydrate. It is soluble in alcohol, but insoluble in water. Its actions are much like those of chloral, but with less power to abolish the reflexes and less irritating. Merk & Co., New York (*Jour. A. M. A.*, June 14, 1913, p. 1881).

PITUITARY LIQUID.—Pituitary liquid is a sterile solution containing the active principle of the posterior lobe of the pituitary body of the ox. Each cubic centimeter represents 0.2 Gm. of fresh posterior lobe of the pituitary body in physiologic salt solution. It is said to be useful in cases requiring stimulation of the heart or raising of the arterial tension. It is claimed to be valuable in paralytic distension of the intestines and in postoperative and other pareses as well as in promoting uterine contra-actions during labor. It is supplied as Ampoules Pituitary Liquid, 1 Cc. Armour & Co., Chicago, Ill. (*Jour. A. M. A.*, June 21, 1913, p. 1957).

LUMINAL TABLETS, 1½ GRAINS.—Each tablet contains luminal 0.1 Gm. Merk & Co., New York (*Jour. A. M. A.*, June 21, 1913, p. 1957).

LUMINAL TABLETS, 5 GRAINS.—Each tablet contains luminal 0.3 Gm. Merk & Co., New York (*Jour. A. M. A.*, June 21, 1913, p. 1957).

REFORM IN MEDICINES

BANNERMAN'S INTRAVENOUS SOLUTION.—Bannerman's Intravenous Solution is put on the market by a man who is neither a physician nor a pharmacist and whose only claim to medical knowledge is that of being a horse-doctor. It was first exploited as a cure for consumption and has been known by the various names "Tubercular Solution," "Germicidal Solution" and "Intravenous Solution." It is now sold as a cure-all. The following meaningless and impossible formula has been ascribed to the preparation: Each 10 c.c. of Bannerman's Solution contains: acid salicylic, 2 grains; hydrargyrum albuminate, 1/9 grain; ferrum, 4¼ grains; sodium chlorid, 6 1/5 grains; calcium carbonate, 2 grains; phenol group, 1/25 grain. The claims made for Bannerman's Intravenous Solution are both false and fraudulent. It is a product the use of which appeals chiefly to cupidity and ignorance (*Jour. A. M. A.*, May 31, 1913, p. 1724).

VALUE OF AMMONIUM CARBONATE.—In prescribing for bronchial ailments the primary thought should always be not to give the patient anything that will cause nausea and vomiting. This is particularly true with babies and children. Ammonium carbonate is always irritant. As an expectorant it has no advantage over ammonium chlorid, and as a cardiac stimulant is more or less of a failure. Ammonium cer-

bonate can stimulate the heart or raise the blood-pressure only by irritating the throat, gullet and stomach and may cause vomiting (*Jour. A. M. A.*, June 7, 1913, p. 1792).

PRESCRIPTION NONSENSE.—A mixture containing quinin sulphate, strychnin sulphate, diluted hydrochloric acid, glycerin and pepsin has been recommended for bronchial pneumonia in which there is respiratory failure. With a very sick child the cerebral irritation from quinin is not advisable, unless it is positively needed. This prescription is so intensely bitter that a child 5 years old will reject it. Also, quinin inhibits the digestive properties of pepsin. If strychnin is positively needed it would be better to administer it hypodermically (*Jour. A. M. A.*, June 7, 1913, p. 1792).

HAY-FEVER VACCINATION.—Clowes of the State Institute for the Study of Malignant Disease, at Buffalo, has observed that sufferers from the American or autumnal form of hay-fever are sensitive to extracts of rag-weed pollen. As a result, an attempt has been made in the Buffalo institution to produce immunity against autumnal hay-fever by vaccination. The favorable results obtained warrant further investigation. The dosage of the extract must be regulated with care as it is not devoid of dangerous possibilities and the uninitiated must be warned against over enthusiasm as the entire matter is in the experimental stage (*Jour. A. M. A.*, June 7, 1913, p. 1796).

MANAGING THE DETAIL MAN.—To reduce the nuisance of the detail men and their samples, the Evanston (Ill.) Pharmacologic Society has appointed a committee to whom detail men must present their case, before they will be received by the other members. This method of dealing with the proprietary question indicates that the physicians of Evanston are alive to their responsibilities. Would it not be simpler and just as efficient, however, to accept the findings of the Council on Pharmacy and Chemistry as constituting credentials for the detail man? Many physicians are using New and Nonofficial Remedies for just this purpose (*Jour. A. M. A.*, June 7, 1913, p. 1812).

SCOPOLAMIN IN LABOR.—A few years ago it was proposed to use morphin and scopolamin (hyoscin) in labor and give a sufficient amount to render and keep the patient in a semiconscious state. This plan was tried out in several German clinics but seems to have been generally abandoned (*Jour. A. M. A.*, June 7, 1913, p. 1814).

RESPIRAZONE.—The manufacturers of Respirazone—The Tilden Company—publish an incomplete and therefore meaningless "formula." It is said to be composed of "Iodid and Bromid of Potassium, Helianthus Annuus [Sunflower], Ipecacuanha, Lobelia Inflata [Lobelia] and Leonorus Cardiaca [Motherwort]." Taken even at its face value, Respirazone evidently is a nostrum of the shotgun prescription type, containing, as is usually the case, some obsolete or worthless drugs. The unreliability of the Tilden Company has been shown by the examination in the A. M. A. Chemical Laboratory of "Hydrocyanate of Iron, Tilden" and by the prosecution by the federal government for misbranding its "Febrisol" (*Jour. A. M. A.*, June 14, 1913, p. 1899).

STAPHYLOCOCCUS VACCINE.—A pure culture of *Staphylococcus aureus*, recently isolated, should be used for the preparation of this vaccine. The "polyvalent" vaccine strains consisting of a mixture of different staphylococci have not been found superior to that of *S. aureus*, alone. The stock vaccine has proved useful in the treatment of chronic furunculosis, sycosis and eczema. It is less valuable in the treatment of acne (*Jour. A. M. A.*, June 21, 1913, p. 1955).

STREPTOCOCCUS VACCINE.—The field of usefulness of stock vaccine of streptococcus is limited. This is due

to the large number of strains and varieties which exist. The use of "polyvalent" vaccines is of no avail. While awaiting response to the stock vaccine, the preparation of an autogenous vaccine should be begun. The stock vaccine should be made from *Streptococcus pyogenes* (*Jour. A. M. A.*, June 21, 1913, p. 1955).

THIOCOL AND SYRUP THIOCOL, ROCHE.—Seven years ago the Council on Pharmacy and Chemistry accepted Thiocol, potassium guaiacol sulphate, for inclusion with New and Nonofficial Remedies and more recently also a preparation of it, Syrup Thiocol, Roche. Recently the Council was advised that the product, in the form of a syrup called Sirolin, was being advertised to the public, both in this country and abroad under grossly exaggerated claims. In view of the well-established fact that the most important of all factors in the cure of consumption consists in an early and accurate diagnosis, followed by general treatment, the Council considers that the advertising of a syrup of Thiocol, under the name "Sirolin," involves not merely a serious infringement of its rules but a menace to the public. After submitting the facts to the manufacturers, the Council voted to delete Thiocol and Syrup Thiocol, Roche, from New and Nonofficial Remedies (*Jour. A. M. A.*, June 21, 1913, p. 1974).

THE SARSAPARILLA FETISH.—Twenty years ago sarsaparilla was regarded by the medical profession as a remedy of value. To-day it is never prescribed by the discriminating physician—although it is still one of the standard ingredients in many worthless "patent medicines." Replying to a request to furnish a formula for a "compound extract of sarsaparilla" the *Druggists Circular* for May says: "We can, but know of no reason why we should, and do not believe that we shall." After recommending the separation of the nostrum business from that of the pharmacist's vocation it is suggested: "Fakers will fake; they don't seem to care; but druggists, as followers of an honorable calling, cannot afford to play grim jokes on trustful seekers after health" (*Jour. A. M. A.*, June 21, 1913, p. 1975).

BACTERIAL VACCINES.—A discussion of the indications and limitations of bacterial vaccine therapy is presented by a committee appointed by the Council on Pharmacy and Chemistry. Vaccine therapy is a highly specialized field of medicine whose successful pursuit calls for a particular training in bacteriology, immunology and clinical medicine. The therapeutic possibilities of vaccine therapy have been exaggerated. The promiscuous use of the stock bacterial vaccines of commerce in the treatment of acute and chronic infections is an irrational procedure. Ready-mixed commercial vaccines should be abolished. In cases suitable for bacterial therapy, autogenous vaccines are with few exceptions superior. Autogenous vaccines should be prepared by those in touch with the patient and not through the agency of remote laboratories (*Jour. A. M. A.*, June 25, 1913, p. 2046).

BOOK REVIEWS

SURGERY, ITS PRINCIPLES AND PRACTICE. By Various Authors. Edited by William Keen, M.D., LL.D., Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Volume VI. Cloth, 1177 pages, with 519 illustrations, 22 of them in colors. Price per volume, cloth \$7.00 net, half morocco \$8.00 net. Published by W. B. Saunders, Philadelphia and London, 1913.

Any system of medicine or surgery must needs in time become more or less unsatisfactory because of the

progress made in either branch. This is particularly true of surgery since the advances along surgical lines have seemed far to outstrip those in medicine in the last one or two decades. And since considerable progress has in that time been made along certain lines, the profession has to thank Dr. Keen for bringing his work up to the present date by this supplementary sixth volume.

Some of the new matter in Volume VI will, in its enumeration, convey some idea of the attempt that has been made to make the volume thoroughly modern and complete. Among such subjects are Beck's Bismuth Paste, Murphy's Formalin-glycerin Injections, W. L. Clark's Desiccation, de Keating-Hart Fulguration, Anoci-association, Lane's Bone Plates, Carbon-dioxid Snow, Bone Transplantation, Nitrous Oxid Intratracheal and Intravenous Anesthesia, Pituitary Surgery, Pulmonary Emphysema, Ochsner's Peritonitis Treatment, Jejunal and Gastrojejunal Ulcers, Lane's Kink, Subphrenic Abscess, and ninety pages of new gynecologic matter.

Perhaps one of the greatest fields of surgery for latter-day advancement has been that of thoracic surgery. To this subject the author has given considerable attention. Although some of the collaborators who contributed to the earlier volumes have, since the appearance of the last volume, passed away, the work has been taken up by various colleagues and friends. The volume affords a very necessary supplement to the completion of a thoroughly modern system of surgery.

Unfortunately there are a few typographical errors in this volume and several places were noted wherein the diction could have been changed with advantage.

All told, however, the volume is worthy of a place along with its fellows in the series as perhaps the standard text of surgery in the English language.

Mention should be made of the fact, in the review of this work, that there is included with this sixth volume a general index to the complete work, an addition which the author had intended to make to the fifth volume had not lack of space precluded it.

The Practical Medicine Series. Comprising ten volumes on the year's progress in medicine and surgery under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, and Charles L. Mix, A. M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume IX, Skin and Venereal Diseases, Miscellaneous Topics, edited by W. L. Baum, M.D., and Harold N. Moyer, M.D. Series 1912. Chicago, The Year Book Publishers, 180 North Dearborn street. Cloth, price \$10 per year for the series.

Baum's section of this volume is made up largely of a consideration of the various dermatoses, radiotherapy, gonorrhea, chancroid and syphilis. While a considerable amount of space is devoted to 606, yet little or nothing can be found regarding neosalvarsan.

After a discussion of 50 pages concerning genito-urinary medicine and surgery, there are a number of pages devoted to miscellaneous topics such as medical history, medico-legal questions, eugenics, etc.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at Mercy Hospital, Chicago. Volume II. Number 11. (April, 1913.) Octavo of 171 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Published bi-Monthly. Price per year: Paper, \$8.00; cloth, \$12.00.

In this number of Murphy's Clinics will be found considerable interesting data on subjects of rather

common occurrence, particularly gastric and duodenal ulcers, gall bladder disease, ureteral calculus, and considerable material on subjects of bone surgery.

In the history of the case containing considerable pathology in the upper abdomen, that is, a case of gastric plus duodenal ulcer, gall-stones and pericholecystitis, it is unfortunate that more data are not given concerning the course pursued by the patient immediately after the operation and before the fatal issue by pneumonia. In such a case one is interested to know just how much mechanical relief is afforded by the release of such extensive adhesions as existed in this case. The whole number is very interesting indeed and the subjects are well illustrated and carefully discussed.

The Practical Medicine Series. Comprising ten volumes on the year's progress in medicine and surgery under the general editorial charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School, and Charles L. Mix, A. M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Volume VII, Pediatrics, edited by Isaac A. Abt, M.D., Professor of Pediatrics, Northwestern University Medical School, attending physician Michael Reese Hospital; with the collaboration of May Michael, M.D. Orthopedic Surgery, edited by John Ridlon, A. M., M.D., Professor of Orthopedic Surgery, Rush Medical College; with the collaboration of Charles A. Parker, M.D. Series 1912, Chicago. The Year Book Publishers, 180 North Dearborn street. Cloth, price \$10 per year for the series.

The pediatric section of this number is both comprehensive and interesting. Dr. Abt has outlined some very practical points in the treatment of summer diarrheas and in methods of artificial feeding. Some of the newer questions, such as the vaccine treatment for whooping cough and experimental studies on the transmission of measles to monkeys, the present views of the diagnostic value of inclusion bodies in scarlet fever are interestingly discussed and briefly digested.

The section on orthopedic surgery is rather brief and contains nothing extraordinary save the negative attitude adopted by the author toward the recognition of the condition of sacro-iliac relaxation as a definite clinical entity. At this we are somewhat surprised, in view of the fact that to anyone who has seen a bona fide instance of this condition, little doubt remains as to its exact pathologic significance.

THE ACCESSORY SINUSES OF THE NOSE. By Ross Hall Skillern, M.D., Professor of Laryngology, Medical-Chirurgical College, etc. Price, \$5.00 net. J. B. Lippincott Company, Philadelphia and London.

Heretofore, the subject of Accessory Sinuses has been considered in the general text-books on diseases of the nose and throat. We are therefore pleased to welcome a text-book which is devoted exclusively to the consideration of accessory sinuses, their diseases and treatment. The subject-matter has been handled in a very comprehensive manner and numerous well-selected illustrations help to elucidate the text. Of the 382 pages of the text, 97 are devoted to general considerations, 87 to the maxillary sinus, 95 to the frontal sinus, 50 to the ethmoid labyrinth, and

40 to the sphenoid sinus. In discussing treatment, the authors have been reasonably conservative in their own recommendations, though they have not failed to mention and give credit for the numerous operations more or less generally employed and to include a rather full discussion of serum and vaccine therapy which at the present time seem to be on the top wave of popularity. The conservativeness of the authors is evidenced by the fact that they consider serum and vaccine treatment of diseases of the accessory sinuses of efficacy even following operative procedures and the establishment of drainage. They very properly recommend such operative treatment as will not only establish drainage but enable the operator to eradicate the infection. The work is a splendid exposition of the subject considered and should be welcomed by the medical profession in general, and the ear, nose and throat specialists in particular.

AN ATLAS OF THE DIFFERENTIAL DIAGNOSIS OF THE DISEASES OF THE NERVOUS SYSTEM. Analytical and Semeiological Neurological Charts. By Henry Hun, M.D., Professor of the Diseases of the Nervous System in the Albany Medical College, Member of the Association of American Physicians, the American Neurological Association, etc. The Southworth Company, Publishers, Troy, N. Y., 1913. Cloth, 290 pages. Price \$4.00.

It is well known among students and general practitioners with what difficulty the subjects of neurology and psychiatry are mastered, and it is with the appreciation of such difficulties that the author has attempted in this work to make the diagnosis of nervous diseases not only plain for the neurologist but simple and easy for the general practitioner as well.

This volume is made up of a series of diagnostic charts, on one side of the chart appearing an important symptom for analysis and on the other side a list of all diseases in which such symptom occurs. Then there are included a series of tests by which all possible diseases are divided into naturally related groups, which permits of an ultimate diagnosis by exclusion.

The work is of value not as a substitute for case records or hypothetical questions, but rather as affording a direct line for the examination which ultimately leads to the diagnosis of the case in hand. The work embraces not only differential diagnosis but also a clinical physiology and pathology of nervous diseases and defines all the numerous neurologic terms, giving at the same time their relationships and the conditions under which they occur, both in health and disease.

A very complete index at the end of the volume adds materially to the working value of the book.

VACCINE AND SERUM THERAPY. Including also a Study of Infections, Theories of Immunity, Specific Diagnosis and Chemotherapy. By Edwin Henry Schorer, B.S., M.D., Dr. P.H., Assistant Rockefeller Institute for Medical Research, New York City, etc. Second revised edition. Price \$3.00. C. V. Mosby Company, St. Louis, 1913.

Our knowledge and opinions concerning vaccine and serum therapy are constantly changing as a direct result of study and experiences of investigators. We are therefore pleased to note that in this second edition the authors have revised the text to conform

with present-day teachings and knowledge. Of particular importance is the emphasis placed upon the fact that if vaccine and serum therapy amount to anything they do so because they are specific and for this reason their use must be based on the diagnosis of the etiological factors in the disease. Therefore, the practitioner, who is inclined to use the shot-gun mixtures of vaccine and serums, sold and recommended by commercial houses, in the treatment of so many diseased conditions in which the definite etiological micro-organism cannot be isolated, will find little comfort in the emphasis which the authors of this text-book place on the statement that it must clearly be remembered that if benefits are to be derived from active immunization the vaccine must consist of a suspension of the causal organisms. The authors condemn the use of mixed vaccines because of failure to diagnose the causal organisms and they very properly recommend the use of autogenous vaccines when it is possible to do so. The whole subject has been treated in a very practical and comprehensive manner, and justified conservatism has been exercised in recommendations concerning the value of vaccine and serum therapy except in those conditions in which a very definite organism can be determined as the cause of the diseased process for which the treatment has been instituted.

New Aspects of Diabetes, Pathology and Treatment. By Dr. Carl Von Noorden, Professor of the First Medical Clinic, Vienna. Lectures delivered at the New York Post-Graduate Medical School, New York. New York, E. B. Treat & Company, 1912. Cloth, pages 160. Price \$1.50.

The part played by Carl Von Noorden in the study of general metabolism and its present day conception is so well known that it seems almost superfluous to comment upon anything that comes from his pen, but it is a pleasure to run over some of the phases of diabetes as presented in his later writings.

Following the introduction, there occurs a section on the source of sugar, including among other things a very interesting discussion of the acetone bodies. We did not come across any place wherein Dr. Von Noorden was willing to commit himself to the statement that acetone was produced from any single food element alone; so that the question of its specific origin, namely, either carbohydrates, proteids or fats, is still unsettled. Section two deals with the rise in caloric production and its causes, and section three with the control of sugar formation and its disturbances, as well as the theory of diabetes. Section four is made up of the therapy of diabetes and the volume closes with a discussion of acetonuria and its influence on the treatment of diabetes mellitus.

The author makes the very practical point that no hard and fast lines can be laid down which will be applicable to each and every case of diabetes even of equal severity, but rather must the individual case be made a matter of clinical study itself, in order to determine its limits of tolerance and the most rational mode of therapy.

Anyone wishing the latest data upon the consideration of diabetes in its various phases, namely, etiology, pathology and therapy, can ill afford to be without this little volume.

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FORT WAYNE, IND., AUGUST 15, 1913

NUMBER 8

ORIGINAL ARTICLES

HYDRONEPHROSIS PRODUCED BY EXPERIMENTAL URETERAL OBSTRUCTION *

G. D. SCOTT, M.D.
SULLIVAN, IND.

At the present time there seems to be a great diversity of opinion as to the pathogenesis of hydronephrosis, and while experiments have been reported with increasing frequency during recent years, many of the conclusions have been indefinite and contradictory.

The experiments on which this paper is based were performed on some fifty dogs in the Anatomical Laboratory of the Northwestern University Medical School, to determine the following questions:

1. If a sudden complete obstruction of the ureter would produce a hydronephrosis.
2. If an incomplete or intermittent obstruction of the ureter would produce a hydronephrosis.
3. Which of the above would produce a hydronephrosis more rapidly?
4. What histological changes would be produced in the kidneys?
5. Would the kidney functionate normally after removal of the obstruction?

For the purpose of producing a complete obstruction of the ureter, it was doubly ligated with silk-worm gut, through a retroperitoneal incision. To produce an intermittent obstruction, a small rubber band was placed around the ureter in such a manner as to temporarily constrict the lumen.

I. *Complete obstruction of the ureter produces hydronephrosis of great degree.* Some thirty

experiments were performed in which the ureter was doubly ligated, thus forming a complete obstruction.¹ The duration of the obstruction varied from three days to 198 days. In every case a typical hydronephrosis resulted, the degree depending on the duration of the obstruction. These represent all stages of hydronephrosis from a slight distension of the kidney pelvis to a large monolocular, thin-walled cyst, filled with clear fluid. The cavity develops at the expense of the renal parenchyma. First there is a slight distension of the kidney pelvis. Later the papillae are flattened and the medulla compressed, and finally the medulla is destroyed and the cortex flattened. In late stages the kidney is represented by a large monolocular cyst, with a thin wall composed of kidney cortex. The fluid in every case was clear, showing no infection, either ascending or descending, which was verified on microscopic examination of the kidney tissue.

II. *The histological changes in the kidney vary according to the duration of the obstruction of the ureter,* and are apparently due to two causes, as formerly explained by Griffiths. The first is by direct pressure of the accumulating fluid on the kidney tubules, and the second by the impoverished nutrition of the parenchyma from the compressing and stretching of the renal vessels as they enter the renal pelvis, and from sclerosis of their walls. The changes produced by direct pressure of the retained fluid in the kidney pelvis take place in a definite order. First the fluid backs up into the straight tubules. These are usually dilated, especially in early stages, but later as the pressure of the accumulating fluid increases, both in the renal pelvis and in the tubules, some are compressed so that the lumina are practically obliterated. This is especially noted in the tubules subjacent to the renal

* Read at the Indianapolis session of the Indiana State Medical Association, October, 1912.

1. The detailed protocols are published in Jour. Surg., Gynec. and Obst., September, 1912.

pelvis. The next change noted is the dilatation of the convoluted tubules with a flattening of the epithelium, due to a gradual back-flow of the accumulating fluid. The glomeruli are last to suffer, and the changes occurring in these consist in dilatation of the capsular spaces and shrinking of the capillary tufts. In late stages the glomeruli atrophy and become compressed, so that they are more numerous in each microscopic field. Later when the wall of the cyst becomes very thin, the glomeruli become so compressed that they are oval in shape, with their long axis parallel to the kidney capsule, and the capsular spaces become widened at each extremity so as to resemble handles to the glomeruli. The epithelium loses its striated appearance early and becomes granular, due probably to both the pressure and the poor nutrition from vascular changes. The nuclei usually stain deep blue and are apparently healthy.



Fig. 1.—Hydronephrosis of 97 days' duration, followed by ureteral anastomosis of 6 days' duration.

In early stages the vessels are usually engorged, but later sclerosis of their walls is marked. No great changes take place in the interstitial tissue. In none of the specimens were there any microscopic evidences of infection.

III. *Incomplete obstruction of the ureter produces hydronephrosis.* Eleven experiments of incomplete obstruction of the ureter were performed. After periods varying from one day to 163 days, the dogs were autopsied, the kidneys weighed, measured and the pressure required to expel the fluid through the obstruction taken by manometer. Of the eleven experiments of intermittent obstruction of the ureter, all showed hydronephrosis of varying degree. By comparing cases of complete and incomplete obstruction of approximately the same duration, it was found that hydronephrosis developed more rapidly when

the ureter was completely ligated. It was also found that the degree of hydronephrosis depended on the size of the constriction of the ureter. In one experiment of thirty-seven days' duration, where the pressure required to expel urine through the constriction was 45 mm. Hg, the cavity was twice the size of that in another case of thirty-eight days' duration, where the pressure was approximately one-half that of the former.

The microscopic changes in kidneys following intermittent obstruction of the ureter are about the same as in those of hydronephrosis produced by complete ligation of the ureter. The rapidity of the dilatation of the tubules depends on the degree and duration of the obstruction.

After hydronephrosis of extreme degree has been produced by complete obstruction of the ureter, if the obstruction is removed, the kidney epithelium will regenerate and function. In this third series of experiments, the ureter was doubly ligated to produce hydronephrosis. After inter-



Fig. 2. Mesial section of specimen shown in Fig. 1.

vals varying from nineteen to ninety-seven days from the primary operation, the obstruction of the ureter was removed, and the two ends of the ureter anastomosed, thus allowing urine to escape into the bladder. Then after intervals varying from six to forty days following the secondary operation the dogs were autopsied, the kidneys measured, weighed, sectioned, stained and examined microscopically.

In every experiment except one, the kidneys reassumed their normal shape and became approximately the same size as the control of the opposite side. The color was paler than normal. The cystic cavity became smaller as the medulla reassumed its normal arrangement and width. Infection of the renal parenchyma occurred after each ureteral anastomosis. In one experiment hydronephrosis again resulted from a change in position of the kidney pelvis causing a kink in the ureter.

The microscopic changes correspond closely to those described by MacNider. The kidney epith-

efium shows regeneration with formation of new renal tubules in each case. These tubules are placed in a matrix of fibroblasts and vary in appearance. Some are represented by solid rods or buds arranged in parallel rows composed of irregularly shaped, hyperchromatic nuclei, and without definite lumina, or tubular walls. Others have a distinct tubular wall composed of flattened hyperchromatic nuclei, with lumina filled with larger spherical, deeply-stained nuclei.

Other tubules are represented by a wall of spherical or cuboidal hyperchromatic nuclei with definite wide and empty lumina.

The regeneration of tubules apparently begins as a row or bud of deeply-stained nuclei, irregular in outline. These nuclei gradually migrate toward the periphery and become spherical and

2. Incomplete obstruction of the ureter also produces hydronephrosis, but less rapidly than complete obstruction.

3. The degree of hydronephrosis following incomplete ligation of the ureter depends on the duration and on the pressure required to force the retained fluid through the constriction.

4. The changes occurring in the kidney parenchyma consist of dilatation of the tubules, flattening of the epithelium, granular changes in the epithelial cytoplasm, and occasionally breaking of the cell wall. The interstitial tissue is usually increased and in late stages the blood vessels are sclerotic.

5. In hydronephrosis of highest degree, the kidney epithelium is never completely destroyed, but after removal of the obstruction it is capa-



Fig. 3.—Photo-micrograph of kidney shown in Fig. 2. Magnification 120 diameters.

form the tubular wall, while the center becomes hollowed out to form the lumen. Mitosis of the epithelium is seen in but a few places. The cytoplasm of these newly-formed cells is at first either absent or faintly stained.

The connective tissue cells in some areas seem to arrange themselves in a concentric manner around the tubules.

The tubules in the medullary portion apparently grow with greater rapidity than those in the cortical portion.

CONCLUSIONS

1. Complete ligation of the ureter produces hydronephrosis, the degree depending on the duration of the obstruction.

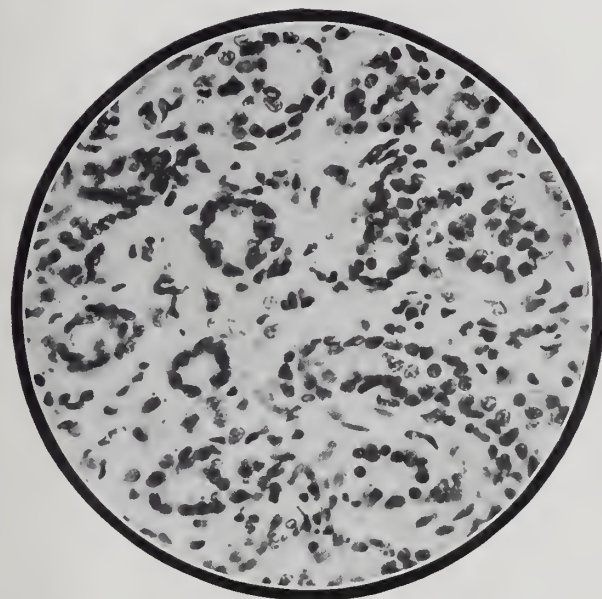


Fig. 4.—Same section as Fig. 3. Magnification 375 diameters. Note the stages of tubular formation. In the upper right-hand corner is a tubule appearing as a mass of round nuclei without a definite lumen. In the center is another tubule with a definite tubular wall and a few cells in the lumen.

ble of rapid regeneration, with the formation of new tubules.

DISCUSSION

DR. B. P. WEAVER, Fort Wayne: The discussants of Dr. Scott's excellent paper were fortunate indeed in having at hand so complete a résumé of his experimental work on this subject, as that appearing in the September number of *Surgery, Gynecology and Obstetrics*. Although the literature bearing on the question of kidney block, experimental and otherwise, has now become voluminous, yet to-day both clinicians and laboratory men differ among themselves regarding the effect of complete ureteral obstruction, a fact brought out by the essayist. In illustration of this point

one has only to turn to Barney's article just preceding that of the essayist in the publication already mentioned. From his experimental work Barney was led to the conclusion that hydronephrosis is dependent for its development on the formation and growth of capsular, vascular anastomoses plus obstruction. In contrast to this, we find Dr. Scott actually surrounding the capsule with a silk sac and still producing hydronephrosis by ligating the ureter. However, Dr. Barney's contribution is of value in having combined a clinical with the experimental study of the subject and his final conclusion stands out an eminently practical one, namely, "(a) that there is strong probability that many a ureter is ligated without the fact being known, and (b) that in the presence of postoperative anuria and in the absence of localizing symptoms, examina-

It seems really remarkable, too, how long a patient may suffer a complete anuria with apparent immunity. Not long ago I was considerably surprised at the comparative comfort, from a urinary standpoint, of a patient suffering for three days from a total anuria, the result of ureteral block from malignant disease of the pelvic organs. My surprise was dispelled on finding the case of Morris' in which anuria existed for seventeen days without great discomfort during most of the time.

The point of greatest practical utility in this discussion, aside from the ultimate fate of a kidney whose ureter has been cut or tied off, is how long such an obstructed kidney may be allowed to remain and not lose its function. It has been well established that the renal epithelium will still secrete water and nitrogenous material after



Fig. 5.—Section from regenerating kidney showing new tubules arranged in parallel rows. Magnification 110 diameters.

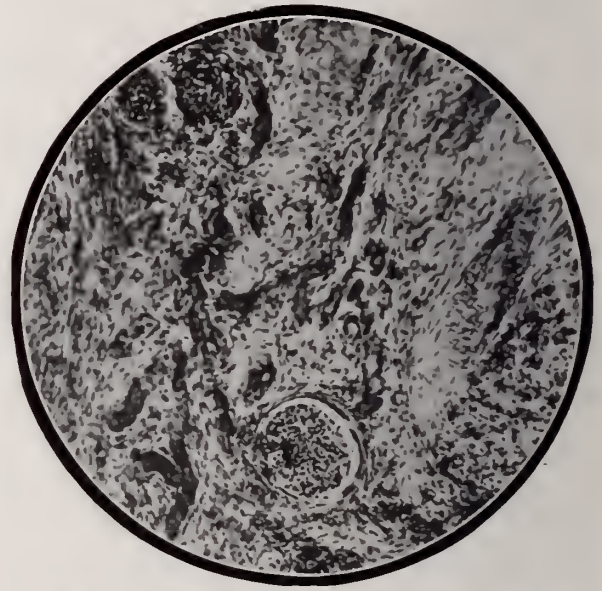


Fig. 6.—Photo-micrograph from same section as Fig. 5, showing glomeruli.

tion of each ureter by the cystoscope may be the only means of determining whether one or both kidneys have been occluded."

Years ago Robert Morris gave the lie to the surgical dictum that "to ligate a ureter was necessarily fatal to the patient," when he made the statement, at that time rather startling, that such procedure very often resulted in the production of not the slightest symptoms, but that the corresponding kidney simply went on to atrophy. It will be remembered that Dr. Scott observed atrophy in only one of his cases. This lack of symptomatology is borne out by authorities quoted by Frank and Baldauf, in the September *Annals of Surgery*, and by Corbett in the October number of the *American Journal of Medical Sciences*.

two months' complete obstruction, although it is probable that the prognosis for complete restoration of function is not good after ten days of obstruction. Then there are, of course, the added dangers of infection, hematogenous in origin and localizing in the operated kidney, and changes in the unoperated kidney resulting from nephrotoxic substances within the hydronephrotic sac. Though these factors are relatively uncommon, their danger must be appreciated in dealing with this surgical misfortune.

DR. H. G. HAMER, Indianapolis: I did not have the privilege of hearing Dr. Scott's paper, but I have had the privilege of perusing his article in the *Journal of Surgery and Gynecology* for September of this year. I am very much interested in these experiments he has been carrying out. I think it is a subject of great inter-

est to surgeons, particularly. Barney of Boston had a very interesting article along the same line. His conclusions were practically the same as those of Dr. Scott—that while hydronephrosis was produced by complete or incomplete obstruction of the ureter, the degree depends on the length of time and the amount of obstruction. I was very much pleased to learn that when that had been demonstrated in these experiments the partial obstruction caused an increased output of the kidneys, whereas gradually increasing it the secreting action of the kidneys is retarded considerably. The work along this line should be encouraged, especially toward seeing how well this kidney will regenerate after the obstruction is removed, and I hope we will have some more reports along that line soon.

I will take advantage of this opportunity to demonstrate here a specimen obtained by post-

we ought all to express our highest appreciation of work of this sort on the part of Dr. Scott. Whether we agree with him or not is entirely immaterial; but a man who will get down and make experiments and base his conclusions on the results, is a valuable man.

Now, in regard to atrophy. You get an atrophy when you lose your trophic condition. Of course, as Dr. Weaver suggested, you surround the kidney with a silk capsule and that would cut off the circulation, but it seems to me that the slides show the blood-vessels were developed, in spite of the fact of the compression. How long an organ will stand compression and resume its natural form, I do not know. It seemed to me, however, in the cases here, that there has been a real tubular atrophy, and increase in the size of the pyramids.

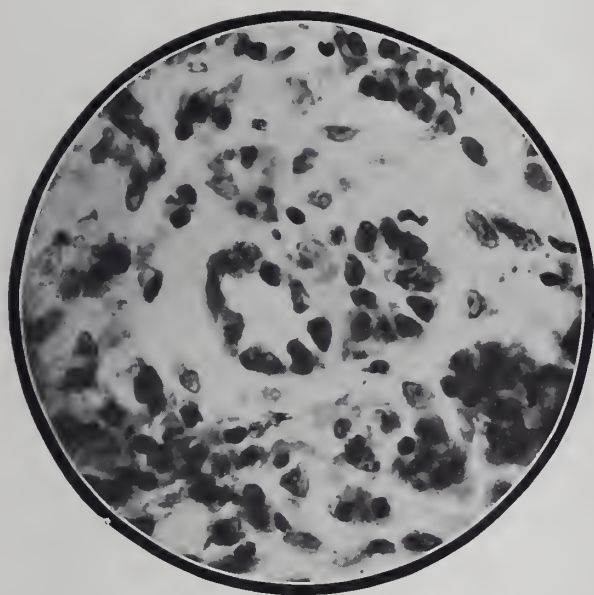


Fig. 7. Photo-micrograph from regenerating kidney showing formation of new tubules. Magnification 700 diameters.

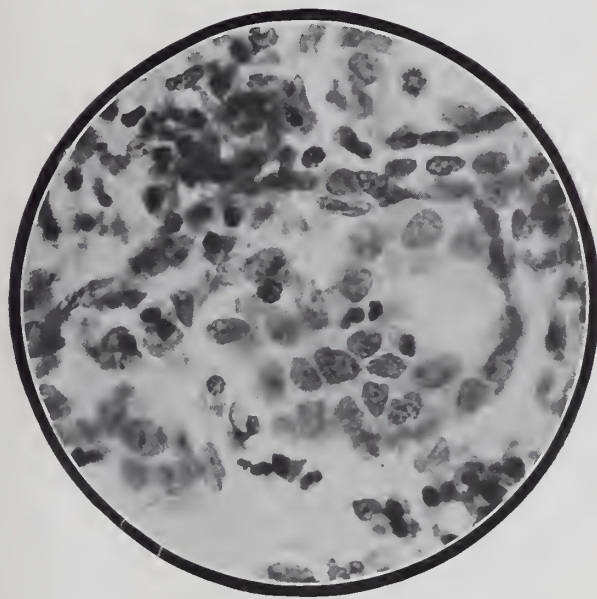


Fig. 8.—Same section as Fig. 7, showing attempt of cells to arrange themselves to form tubules.

mortem at the City Hospital, of a double hydronephrosis, a double kidney on one side and a double ureter on both sides. Morris says double ureter unilateral is comparatively frequent, but double ureter on both sides is rare. (Shows specimens.)

I am indebted to Dr. Alburger for the privilege of demonstrating this rare specimen here.

DR. B. D. MYERS, Bloomington: Gentlemen of the Society: I asked that these other gentlemen be called on first, because they had had more opportunity to get ready for this paper. I had not read Dr. Scott's paper, and so felt that as my discussion would be entirely extemporaneous, I should not take up valuable time.

The paper, I am sure you will all agree, is a very interesting one. I meet it for the first time, but I want to say in the beginning that I think

In regard to regeneration, I would like to ask Dr. Scott a question. We cannot speak of regeneration merely by the apparent presence of hordes of cells without lumina, nor is regeneration of tissue an unusual thing. You all know that they are doing that right along in the experiment laboratories in the case of frogs. But if regeneration is really taking place here, we ought to get organic increase. Perhaps Dr. Scott will tell us about that.

DR. O. B. NESBIT, Valparaiso: I do not want to discuss the paper, but I want to express my appreciation of it, and I think this Society is very much indebted to Dr. Scott for his excellent work. We ought to be very proud of it.

Dr. Scott (closing): I wish to thank the discussants for their consideration and the remarks they have made.

Along the line of regeneration of the kidney, Barney and others have recently shown that the kidney epithelium regenerates very rapidly. They have found this epithelium to develop within twelve hours.

About the mitosis, several claim that they have not seen mitosis, at least not marked. I have seen mitotic increase in some of my experiments, but I did not have time to show them.

About capsular anastomosis, I do not think this has anything to do with the formation of hydronephrosis, since by sewing the silk sac around the kidney I produced hydronephrosis just the same.

THE LUETIN TEST IN SYPHILIS *

CHAS. G. BEALL, M.D.

FORT WAYNE

The desirability of a simple test for syphilis is manifest. Von Pirquet's discovery of a specific cutaneous reaction for tuberculosis stimulated investigators to attempt to obtain a substance that would give a specific reaction in syphilis. Various syphilitic tissues were used for this purpose, but the results were unsatisfactory. Pure cultures of *Treponema pallidum*, together with their products of metabolism, obviously offer advantages over the other substances previously used. Noguchi soon after obtaining pure cultures of the *Treponema pallidum*, began, at the suggestion of Professor Welch, the study of a cutaneous reaction brought about by the injection of dead cultures of the *T. pallidum* in experimental and human syphilis. The preparation of the culture of *T. pallidum*, to which Noguchi has given the name of "luetin," is described by him in the *Journal of Experimental Medicine*, Dec. 1, 1911. Luetin consists essentially of an emulsion made by grinding up cultures of *T. pallidum* grown in fluid and solid media, heating to 60 C. for one hour and adding 0.5 per cent. carbolic acid. The control consists of an uninoculated carbolized emulsion of the same media.

The test is made by injecting in one arm intradermically, with a fine needle, 0.05 c.c. of the luetin. The control is used in the opposite arm. The skin is to be made sterile before the injections.

DESCRIPTION OF REACTIONS (FROM NOGUCHI)

Negative Reactions.—In the majority of normal persons there appears, after twenty-four hours, a very small erythematous area at and around the point of injection. No pain or itch-

ing sensation is experienced. This reaction gradually recedes within forty-eight hours and leaves no induration. In certain individuals the reaction may reach a stage of small papule formation after twenty-four to forty-eight hours, after which and within seventy-two hours it commences to subside. No induration is left behind, although occasionally slight yellowish pigmentation may result from mild ecchymosis.

Positive Reactions.—According to the manner and intensity with which the skin of syphilitics responds to the introduction of the luetin, one may distinguish the following varieties of effects:

(a) **Papular Form.**—A large, raised, reddish, indurated papule, usually 5 to 10 millimeters in diameter, makes its appearance in twenty-four to forty-eight hours. The papule may be surrounded by a diffuse zone of redness and show marked telangiectasis. The dimensions and the degree of induration slowly increase during the following three or four days, after which the inflammatory processes begin to recede. The color of the papule gradually becomes dark bluish-red. The induration disappears within one week, except in certain instances in which a trace of the reaction may persist for a longer period.

(b) **Pustular Form.**—The beginning and course of this reaction resemble the papular form until about the fourth or fifth day, when the inflammatory processes commence to progress. The surface of the indurated, round papule becomes mildly edematous, and multiple milium vesicles occasionally form. At the same time, a beginning central softening of the papule can be seen. Within the next twenty-four hours the papule changes into a vesicle, filled at first with a semiopaque serum that later becomes definitely purulent. Soon after this, the pustule ruptures spontaneously or after slight friction or pressure. The margin of the broken pustule remains indurated, while the defect caused by the escape of the pustular content becomes quickly covered by a crust that falls off within a few days. About this time the induration usually disappears, leaving almost no scar after healing. There is a wide range of variation in the degree of intensity of the reaction described in different cases, as some show rather small pustules, while in others the pustule is much larger.

(c) **Torpid Form.**—In rare instances, the injection sites fade away to almost invisible points within three or four days, so that they may be passed over as negative reactions. But sometimes these spots suddenly light up again after ten days or even longer and progress to small

* Read before the Indiana State Medical Association at Indianapolis, Oct. 11, 1912.

pustular formation. The course of this pustule is similar to that described for the preceding form.

Dr. Noguchi kindly sent me a supply of luetin and control with which the following tests were made.

TABLE 1.

| No. | Clinical Syphilis | Luetin Test |
|-----|--|-------------|
| 1. | Gumma of Skin—active | + |
| 2. | Perforated nasal septum—active..... | ++ |
| 3. | History of lues, active syphilitic rhinitis. | ++ |
| 4. | Perforated palate—not active..... | ++ |
| 5. | Perforated nasal septum | ++ |
| 6. | Gumma of skin | ++ |
| 7. | Gumma of skin | ++ |
| 8. | Gumma of skin | + |

Table 1 shows that the luetin test was positive in all of eight patients with tertiary syphilis.

TABLE 2.

| | | Luetin Test Positive | Luetin Test Negative | First and Second Luetin Tests did Not Agree |
|-----------------------------|----|----------------------|----------------------|---|
| Wasserman test positive .. | 12 | 5 | 6 | 1 |
| Wasserm. test weak or faint | 16 | 1 | 13 | 12 |
| Wassermann test negative. | 40 | 5 | 28 | 7 |

Table 2 gives the results of the luetin test in sixty-eight inmates of the Indiana School for Feeble Minded Youth, who had no evidence of clinical syphilis and on whom the Wassermann test had been made by Dr. Langdon of this city.

TABLE 3.

| | |
|--|----|
| First and second luetin tests agreed positively..... | 11 |
| First and second luetin tests agreed negatively..... | 41 |
| First and second luetin tests did not agree..... | 15 |

Table 3 consists of sixty-seven cases in which two luetin tests were made at intervals of three months.

At times it was found difficult to decide whether a test was positive or negative, but the test was always called negative when there was any doubt about the matter.

From the above results it is safe to conclude that beyond any doubt the present luetin test contains elements of a specific reaction; that the present preparation does not give results which are constant enough on which to base a diagnosis in a doubtful case.

I may say that the preparation of a more active luetin has already been undertaken by the Rockefeller Institute, that probably with a concentration of the products of growth of the *T. pallidum* a substance may be obtained of the greatest value in the diagnoses of lues.

In conclusion, I wish to thank Dr. Langdon for making the Wassermann tests and Dr. T. L. Taylor, Resident Physician at the Indiana School for Feeble-Minded Youth, for his assistance in carrying out this work.

TREATMENT OF SYPHILIS *

WM. S. EHRICH, M.D.
EVANSVILLE, IND.

Perhaps the one disease that has longest baffled medical science and at the same time the disease on which, until recently, least work has been done is syphilis. Possibly the cause of this has been that we knew an antidote and were satisfied to let it rest at that. And on through all this time medical men have been satisfied to make a clinical diagnosis where possible, and then give mercury, leaving it to the men of the laboratories, in very recent years, to make the only advances in the knowledge and treatment of this disease that have been made since prehistoric times.

Relating to the cause of the disease there have been no less than a score of organisms accused of being the etiologic factor, but not until 1905 did Schaudinn discover the real cause—the *Treponema pallidum*—which has been taken by Noguchi through Koch's postulates and proven to be the one and only cause.

Those of us who are studying the disease cannot help looking back only a few years when we were taught not to depend on the clinical evidence of the primary lesion, but to wait until the diagnosis was confirmed by the secondaries, and incidentally the entire organism saturated with spirochetes and toxins before instituting treatment. However, things have changed and since this discovery of Schaudinn there should be no secondaries, as the true nature of the ulcer can be determined at once by a search for the spirochetes.

Now a word as to the technic of staining for these organisms. The writer uses the India ink method and believes it to be as reliable as any, besides taking much less time and work and requiring no expensive apparatus. He will not discuss the Giemsa, Goldhorn or other methods, because they can be easily gotten from any recent text-book, but will give you an idea of the method used by him.

First, and of greatest importance, is collecting the serum. It must be remembered that the *Treponema pallidum* lives in live tissue, so that it is necessary to scrape away the slough and get down to the bleeding surface. After bleeding a few drops the hemorrhage stops and there is an oozing of a few drops of serum. This serum is collected, mixed with India ink and spread over the slide which is air dried and ready for examination.

* Read before the Indiana State Medical Association at Indianapolis, Oct. 7, 1912.

Probably the best method for examination is the dark field illuminator, but this is expensive and not practical for the general practitioner.

The Wassermann reaction is the greatest aid in the diagnosis and treatment of syphilis, but is so extremely delicate and requires so much time and training that it is out of the question for any but an expert who has nothing else to do but this test. Even in the hands of the best pathologists it often gives a negative reaction, although syphilis is present. If it is positive, however, syphilis is, with very few exceptions, to be found. Alcoholism has been said to cause a negative reaction in any case.

Since Noguchi has succeeded in growing the *Treponema pallidum* he has devised a test similar to the Von Pirquet tuberculin test, which gives promise of being very useful in the late stages of syphilis.

In treating syphilis we must take into consideration that we are dealing with an infectious disease, and our first consideration must be to prevent its spread. The patient must be shown minutely how to take care of himself, or better, given a written slip of instructions telling him of its modes of infection and exactly what to do to prevent each.

Concerning drugs, first and foremost is mercury, the real antidote for syphilis, the drug that has stood the test of ages and is still the sheet anchor on which we can place our trust. It therefore remains to discuss the method of administration.

There is a broader range of administering this drug than any other, viz., the digestive tract, respiratory tract, endermically, hypodermically and intravenously.

The internal method has probably been longest in use and in years gone by, those years in which syphilis was presumably a much more virulent process than it is at present, the patient was fed mercury until he was a driveling, foul-smelling wreck, and then kept on this treatment until either death mercifully released him or until he was cured of his syphilis sans teeth, sans health, sans hope. To-day our internal treatment is different, and I believe that many patients are cured, or, at least, their syphilis has been brought to such a condition of inactivity that they have begotten apparently healthy children.

Do not understand that the writer is in favor of internal treatment—far from it. This is used only when the other methods to be described are impossible of application.

The preparations for this purpose are many, and as one is about as effective as the other we will not go into a detailed discussion. The

bichlorid is probably the most satisfactory, especially if it can be mixed with egg albumin, which seems to prevent its irritative action on the alimentary tract.

Vaporization of calomel, the greatest amount being absorbed it is claimed, through the respiratory tract, is seldom, if ever, used, but is a very quick method of saturating the patient with mercury.

Inunction of mercurial ointment is a most reliable and satisfactory method of administering the drug. The ordinary ointment sold in the stores should not be depended on, but a 50 per cent. by weight ointment, made with an animal or a vegetable fat, should be used. Lard is probably the best. The patient is told the amount, how and where to rub his mercury, and is at the same time put on eliminative treatment, hot baths, etc. This is undoubtedly the best routine treatment next to the injections of the insoluble preparations which will presently be described.

Injections. The soluble injections are very rarely used at present, since they have been shown to be much inferior to the inunction. The preparations usually used are the bichlorid and the snceminid.

The insoluble preparations are par excellence the method of choice. They are, of course, open to objections, as are all other methods, but the points in their favor are these: The patient gets a known amount of mercury which does not pass unacted on through the alimentary tract, it is not immediately thrown into the circulation, but must be acted on by the body fluids and consequently there is a continuous absorption, the patient does not have to be taking medicine continuously, but gets an injection twice weekly. The injection is practically painless and in no case have I ever had a patient who was willing to go back to taking pills or inunction. It is clean and there can be more secrecy for the patient, a fact that must by no means be considered of secondary importance.

The preparation that I am especially fond of using is equal parts by weight bidistilled mercury and lanolin. It requires several hours steady work with a mortar and pestle to get this properly mixed. It should then be examined under the low-power lens to see if the mercury is sufficiently finely divided. This mixture is then injected with a needle about 1½ inches long to be sure of getting into the muscle. I have used the salicylate suspended in oil, but discontinued on account of the pain and infiltration and also because one is more liable to get an embolism with this preparation.

The intravenous method has been very highly spoken of by Werneke and Lydston. I have had no experience with it, and since the advent of salvarsan, do not think that it will ever be necessary.

Potassium iodid. This drug has perhaps been used as much as mercury in the treatment, especially of the so-called tertiary forms of syphilis. It is simply an alterative which has a decided effect on the lesions, but is in no way curative.

Salvarsan. It is with extreme regret that I cannot devote sufficient time to this substance to discuss it thoroughly. It is, in my mind, the greatest therapeutic discovery of the age. Taken for granted that it will not do all that its inventor first thought it would, it has in great measure revolutionized the treatment of syphilis.

There are cases, however, that have been completely cured by one injection: Case W., while being treated for gonorrhea, a scratch was observed on the prepuce, which the patient was sure had been done the previous night during his sleep. Since three and one-half weeks had elapsed since his intercourse, the case was regarded with suspicion and examined for the spirochetes, which were found. During the next twenty-four hours he received 0.4 gm. salvarsan and the entire lesion was removed. He has had no symptoms of any kind in the year that has elapsed.

In cases that are farther advanced I have from the beginning combined it with mercury. In some cases the mercury was given first, and while the patient was still saturated, salvarsan was administered. In no case has there been a relapse. Nearly two years have elapsed since the first injection.

My reason for this was very well expressed by Nichols, who said that while the majority of spirochetes were killed, that a few may be in some remote locality where they are not brought into contact with the salvarsan and consequently survive. It is these organisms that are responsible for the relapses. Since mercury, by being converted into an albuminate, penetrates more deeply than the salvarsan it is more logical, I believe, to give the mercury to take care of the remaining organisms than to give repeated injections of salvarsan.

The disagreeable eye symptoms that have been attributed to salvarsan, but which I have never seen, are probably due to the fact that the spirochetes find lodgment in the sheath of the optic nerve and are not reached by salvarsan in this location. At the same time we know that arsenic lowers the resistance of nerve tissue, therefore when reproduction takes place we have a relapse

with the brunt of the infection in the optic nerve. This fact might also account for a most interesting case that I will report. H., male, age 28, clerk, complains of intense headache on right side including right eye. History of syphilis several years ago and three years' treatment with mercury by mouth and KI. About nine months ago he was given salvarsan by one of our local physicians. There was no evidence of syphilis to be seen. The blood, stomach contents and urine were negative. No evidence of tuberculosis. Wassermann reaction was also negative. Fundus of both eyes normal. In spite of all treatment, the headache had continued for four weeks before I saw him. Notwithstanding the negative Wassermann, I felt that the case was syphilis, and the trouble was a low form of meningitis due to the spirochete with simply local manifestations without enough antibodies formed to give a reaction. Mercury intramuscularly and KI cleared up the headache in about a week.

The immediate effects of salvarsan in my experience has been decidedly satisfactory. In a general way I would say that I have always noted a very large gain in weight, more than could be attributed merely to the administration of arsenic. The visible lesions cleared up rapidly in every case. Spirochetes disappeared from lesions in twenty-four hours. In no case was there anything more than a slight rise of temperature, nausea or diarrhea.

I am inclined to think that many of the bad effects of salvarsan are due to the imperfect preparation of the solution. Since "606" is a very unstable compound it may be still further converted by contact with other elements.

As to the indications for giving salvarsan I should say that in any case where there are visible lesions it should be given at once, contra-indications, of course, not existing, in order to remove a source of contagion from the community. This, I think, if for no other reason, gives salvarsan a place in the treatment of syphilis, for while mercury will control the symptoms it takes more time and all the while the patient is a menace to the public health. For the same reason in early cases it should be given in order to stop the action of the spirochetes and their toxins before they have had time to do any more harm than has already been done.

In any case resistant to mercury, or where mercury cannot be tolerated, and especially where the lesions are increasing and threaten the life of the patient, it should be given even though contra-indications do exist. This is shown by the following case:

Mr. B., age 47, carpenter; emaciated, weight 117 pounds. Primary lesion eight years ago. Physical examination shows saddle nose, gummata in both ankles and knees, requiring the use of crutches, tuberculo-squamous eruption on arms, left elbow shows fistula leading to the bone. Urine contains both albumin and casts. Most of the teeth are lost from salivation. Persistent headaches requiring the use of drugs. History of mercurial treatment most of the time since infection.

In spite of the lesions of the kidney, this patient was given 0.3 gm. salvarsan intravenously. After the first week the patient abandoned his crutches, skin lesions started to heal at once, fistula ceased discharging and healed, weight increased 9 pounds during the first week and at the end of the twelfth week had increased 48 pounds.

Most of the adverse criticism that has come to "606" has been from those who have never used it, or from those who have given one injection and expected a cure in advanced cases. Those who have carefully prepared and given the drug and who do not expect miracles put up in 0.6 hermetically sealed packages, have nothing but praise for it.

I will repeat that in cases further advanced than the early primary stage give the combined treatment, salvarsan intravenously and metallic mercury intramuscularly.

I cannot close this paper without paying my respects to Hot Springs, Ark. I think Hot Springs is the best place in the country—to spend money and have a good time while giving the alimentary organs some exercise. So far as the treatment of syphilis is concerned, the beneficial effects are from elimination such as can be gotten at scores of other places, change of scene and diet, and a remarkably good climate and mercury, such as can be obtained anywhere.

DISCUSSION ON PAPERS BY DRS. BEALL AND EHRICH

DR. B. W. RHAMY, Fort Wayne: The specific susceptibility of individuals suffering from any infection to the inoculation of the constituents of the particular organism is a matter of common knowledge, as, for example, the tuberculin test. Likewise it is known that the same hypersensitiveness to a foreign protein exists, as was pointed out by Vaughn and of interest as being the phenomena of anaphylaxis or serum disease. Noguchi's luetin test is a reaction of this order. The exact phenomena of these reactions remain to be determined. Friedberger (Z + S Chr. f. Immunitätsforsch u. Exper. Therap., II, III, IV) formulates a theory that the foreign protein or

sensitizing antigen stimulates the formation of antibodies of an enzyme nature which digest a reinjection of the foreign protein. His theory is that it is the chemical products of this digestion which are the real toxic agents.

From the experiments of Noguchi, Robinson, Wolfsohn and others, it seems to be well established that the luetin test is specific for syphilis and will respond in the majority of cases of latent, tertiary hereditary syphilis, and about 60 per cent. of all cases of general paresis and tabes dorsalis. Its deficiencies are that it is not constantly present in early primary or secondary syphilis and is not affected to any great extent by treatment, but may persist for some time after cure. Noguchi says, "The Wassermann test is of most value in primary and secondary cases, while the luetin test is of most value in tertiary and latent syphilis."

Formerly cures of syphilis were largely guess work. Wassermann tests now show that the majority of cases retained their infection. With the advent of the Wassermann test, luetin test and bacteriologic examination, this process of guess work as to diagnosis or cure is completely abolished, and we now can tell with certainty when the patient has the disease and when he is cured. Fordyce (*Jour. A. M. A.*, Oct. 5, 1912) says that the Wassermann test has shown that few patients treated by internal mercury medication are actually cured. On the contrary, an immunity to mercury is established so that the subsequent administration of mercury has absolutely no effect except to impair the nutrition of the patient. Although it is now well known that salvarsan does not cure in one dose, it has been conclusively shown that given properly and intelligently, salvarsan is an active specific poison for *Spirocheta pallida*. Its efficiency, however, depends largely on the stage of the disease, the general rule being that the more recent the infection the more efficient the remedy and *vice versa*. For example, a patient presents himself with a sore on his penis. Microscopic examination or a Wassermann test shows it is syphilitic, and without waiting for the secondary symptoms to appear, an intravenous injection of salvarsan is given followed by mercury. In most cases several injections are necessary. The method now generally adopted in the use of this drug, and which is followed whenever possible in my own experience of preparing solutions for intravenous injections, is as follows: First, the diagnosis is established by microscopic examination or Wassermann test, then an intravenous injection of salvarsan is given, followed by mercury for two or three months, a second Wassermann test is then made. If still positive, another injection of salvarsan, followed by mercury for three months, then another Wassermann test. This routine is followed out until a negative Wassermann is obtained. The salvarsan injections are

then discontinued and the mercury continued. At intervals of three to six months, Wassermann tests are made and the case pronounced cured when three successive negative Wassermann tests are obtained several months apart.

It is now well established that the intravenous method is by far the best method of injecting this drug. By this method, which should be given under the supervision of a laboratory man, the dangers from necrosis, abscess or permanent induration, which are present in the subcutaneous or intramuscular methods, are obviated. The entire dose is thrown into the blood-stream and exerts its full specific poisonous effect on the spirocheta accessible to the blood-stream. I am absolutely sure that every spirochete that is so accessible is killed within an hour after an intravenous injection. Unfortunately, in most cases and especially the chronic cases, all the spirochetes are not accessible. The *Spirochaeta pallida* is a connective tissue parasite and is found in the connective tissue and lymph spaces, and as a result of tissue reaction to the infection there may ensue a connective tissue hyperplasia around the infected area, forming a distinct encapsulation with consequent imperfect vascularization and with syphilitic obliteration of the vessels, shutting off the blood-supply. It can then be readily understood that in many cases of long standing the salvarsan cannot affect these walled-off parasites. When, however, the processes of repair, including breaking down of dead tissue, organization and vascularization of the areas have progressed sufficiently to allow free circulation, these areas break out into the blood-stream and are then susceptible to subsequent injections.

DR. BERNARD ERDMAN, Indianapolis: The question of the luetin test seems to me to be of the utmost importance. As the essayist says, it has its particular value in latent and in hereditary syphilis. However, this point might be raised. Almost invariably in the clinical work that I have done with Dr. Brayton, in those instances in which we have been able to get blood in hereditary syphilis, we have had a positive Wassermann. We have had one or two instances of very small infants or children where it was impossible to get blood, and naturally we could not get a Wassermann. The difficulty in obtaining the luetin test is one of the features which will probably be overcome, but Noguchi, in his conclusions in the last edition of THE JOURNAL, says that very considerable experience will be demanded in order to determine just exactly when you do or do not have a reaction present. In primary lues with the dark field illuminator it seems almost impossible not to be able to demonstrate spirochetes. If you cannot get them simply from an expression of the lesion, scraping and wiping it dry and allowing the serum to ooze from the lesion will afford an opportunity to gather spirochetes. In secondary lesions there

seems to be very little difficulty in determining spirochetes with the dark field illuminator. They have been found in tertiary lesions, but I have never found them. I have made numerous scrapings and hunted for them, but have not found them in late lesions.

The applicability of the test, of course, will have to be determined. At present, it is so difficult to obtain that it practically shuts out everybody from even experimental use of it.

One thing I might say as to the search for spirochetes in primary lesions, and that is that spirochetes have been found in the primary lesions within seven or eight hours after its appearance. It may be a far cry, but I want to make this statement, that it has been my fortune to find a spirochete in a lesion which has been less than twenty-four hours old. This patient had this lesion, and I made a stain by the old staining method, and within twenty-four hours I was absolutely sure of the spirochete. That was before we had salvarsan or the Wassermann. He was allowed to go on in the old way, and very promptly had a profuse secondary eruption which absolutely confirmed the diagnosis.

Another thing is that the lesions should never be treated, they should never have applied to them any drug of any kind. We have proved this in cases that had been treated that way, and we were obliged to apply bichlorid solutions and get the skin clear before we were able to find the spirochete. Consequently there is some question whether that should be done.

The question of salvarsan in the doctor's paper. The last edition of *The Journal of the American Medical Association* has a few words to say about syphilis. In fact, it is probably the most brilliant journal along that line that has ever been published. It seems, however, that there is a general agreement that only in primary and early secondary syphilis should salvarsan be given. We have found it so. It should be given during ten days or two weeks, and in some cases it is advisable to give three doses in two weeks, and then follow it with mercury. I agree with the doctor that in spite of the fact that salvarsan is creating a great deal of discussion, salvarsan alone has not been proven capable of completely curing the disease, and we all still need to depend on our standby—mercury, which can be given either by the mouth or hypodermically, preferably by an injection of a 10 per cent. mercury solution, preceded by one treatment of salvarsan, and at the end of three to six months determine the patient's condition by the Wassermann reaction. If negative, continue three months and try again.

DR. F. R. CHARLTON, Indianapolis: I only care to speak of two points. I have given up the staining method entirely. I do not know a case where I have failed to find the spirochetes by the dark field, where syphilis developed when the case was kept under observation.

Dr. Erdman made the point that these lesions must be left alone in order to show the spirochetes. The mildest sort of local antiseptic, such as glycerine or listerine, will absolutely rule the spirochetes out anywhere from one to three days, and there are cases where you failed to find the spirochetes by the dark field where you will find the patient has been using some of these mild washes. You send him away and tell him to come back in two or three days, and emphasize it that he must not touch that sore with anything except soap and water—ordinary cleanliness—and he will come back in two to four days and you can demonstrate the spirochetes by the dark field. If you cannot demonstrate the spirochetes by the dark field, I do not believe the patient has syphilis. I have had a few cases where the history was such, the symptoms and lesion and everything, would warrant you in saying he had a chancre, but it did not prove to be syphilis. I have come to a point of pinning my faith absolutely on the dark field. If I cannot find the spirochetes with the dark field, I do not believe they are there; I do not believe the patient has syphilis.

Dr. Rhamy said he thought salvarsan should only be given under the tutelage of a laboratory man. I cannot quite agree with that. I think anyone who knows how to boil a solution and knows the first principles of asepsis can give salvarsan. I remember the first few doses we gave here, we had a regular army of people standing around, making it quite an operation. I give this quite frequently, I can do it alone, and have had no trouble whatever, and I do not believe you should build up a mountain of difficulty around a measure that is so simple and that should be given so generally as this. Any man who knows the elements of modern surgical cleanliness can give salvarsan.

DR. A. W. BRAYTON, Indianapolis: I do not wish to take up the time, because there are young men here, old students and associate teachers, whom I would rather hear. I will simply say that we have had some excellent papers by some progressive young men. We are rapidly making this a salvarsan town, and if we could have our own way and shut out the hordes of the infected that come in from outside, we could as readily make it a non-syphilitic town as by the administration of antityphoid vaccine we can make it an antityphoid town. These are the possibilities within our grasp. I am glad we had a paper from Evansville. There is a light in Evansville. I am glad to hear a paper from Fort Wayne. There are several lights in Fort Wayne.

We have given a thousand dollars' worth of salvarsan in our clinic, and the clinic only spends \$12,000. Our great delight is that we put people immediately out of danger of infecting others, and we give them a big start toward their cure. If under mercury and the iodids Dr. Jonathan

Hutchinson cured syphilis to the extent that he allowed his patients to marry and had no regret for a single case after fifty-four years of such practice, we can certainly say that, given a case of syphilis in the primary stage, or even the secondary stage, by the proper use of salvarsan and mercury we can safely permit them to marry at the end of twelve or eighteen months. It is infinitely more important that men and women should marry, even if they have had tuberculosis or syphilis or gonorrhea, than that they should not marry at all. Of course, they should have been cured, in the sense in which the word "cured" is used. Syphilis is a disease that is not to be feared as it once was, for it can be arrested; it can be controlled; it can be cured.

Here is Dr. Thrasher, who is our leader in the Wassermann reaction, and who, if the whole subject were wiped out of the memory of man to-night, could by to-morrow formulate it and telegraph it all over the world and restore this great serum test by which we determine syphilis in many doubtful cases, and by which we guide and select and control the therapy to the use and beneficence of medicine.

And here is Dr. Garshwiler, who last winter gave the didactic course on syphilis in our medical school to the juniors, by my request; I would like to hear from him. Personally, I am getting far enough along in practice to have treated nearly one hundred physicians with syphilis acquired in the practice of their profession. Some are cured; most when tested have a positive Wassermann. They were negligent of the old mercurial treatment, but they take salvarsan and begin again on the mercury, and they finally, by using and reusing both drugs, attain a permanent Wassermann and may count themselves cured.

I shall advocate salvarsan and mercury and the Wassermann control until we have something better—and that may happen while I live. The younger men of our Society will live for many years and see the glory of the work of Schaudinn, of Wassermann, of Ehrlich and of Noguchi, and will see the diminution of syphilis as we are seeing the diminution of tuberculosis. To them I say, keep up the fight and show no mercy to those who decry science and her ameliorations of the evils of civilization. As the noble Japanese lieutenant said to his squad looking down on the upturned bayonets of the Russians in the moat—so eager to stab that they forgot to fire—"Fall on them, my honorable comrades, with your naked bodies! Those who come after us will do the rest!"

DR. W. P. GARSHWILER, Indianapolis: I just want to subscribe to everything that has been said, and especially the excellent paper by Dr. Ehrlich. I agree with all these things, and also with Dr. Charlton as to the use of the dark field illuminator, except that I have gone a little farther than he has. I examine a case fifteen or

twenty times. I have had cases where I had trouble in finding the spirochetes and still had the case turn up in six weeks with syphilis. I do not think we can examine a case too many times for spirochetes, if we do not find a fairly clear history.

As far as salvarsan is concerned, we all subscribe to it. We know what we can do with it. We can tell a patient with primary or secondary syphilis that at the end of twelve months he ought to be well. We believe he is going to remain well. And we can tell those patients that have gummata that we cannot cure them as certainly. The earlier the syphilis, the earlier and more certain the cure.

DR. L. G. CROMER: This is a subject that I am interested in. I have used salvarsan a few times, and I would like to hear more in regard to the technic of the use of it. I believe in the value of it, but I prefer the gravity method. I use a little normal salt solution to begin with. It was recommended among the first treatments to use a little salt water and then use salvarsan and salt water afterwards by gravity.

DR. JOHN R. THRASHER, Indianapolis: I have only a word to say in regard to the luetin test, and also in regard to the Wassermann reaction in the treatment of syphilis. I think the luetin test is a very useful addition to the methods that we already have for the diagnosis and control of syphilis. I think it has its limitations, as have some of the other methods. I think the luetin test is open to some of the same objections that the Von Pirquet test for tuberculosis is; not all of them, however. It has one objection, I think, and that is that some skins are extremely sensitive to the entrance of any foreign substance, and in this way will give a response and a reaction which is sometimes difficult to read. It will not be open, however, to the objection to the Von Pirquet that we all, after reaching a certain age, have had tuberculosis. Consequently the negative Von Pirquet is of most value. On the other hand, I think a positive luetin test will be of immense value.

Just a word in regard to a point or two in regard to the Wassermann test. Sometimes in cases that have been under treatment perhaps for some little time, the strength of the reaction can be increased by the giving of small doses of potassium iodid over a period of several weeks—four or five or six grains.

But a patient should not be pronounced cured of syphilis until a year after the treatment has ceased, and not then unless, after giving him, say a half dose of salvarsan, and then after waiting a week or ten days you get an absolutely negative Wassermann reaction. The object of giving the salvarsan at this time would be to liberate the toxins, and in that way form the antibodies which give us the negative reaction.

DR. B. P. WEAVER, Fort Wayne: Without any desire to cast any reflection on the "606" enthusiasm of Indianapolis or anywhere else, I simply want to call attention to the last review of G—in *Progressive Medicine* for September, in which the list of fatalities from "606" is numbered in the thousands. The number of accidents go into the hundreds of thousands. So we must not lose sight of the fact that while we are dealing with a very, very useful drug, the most careful selection of cases must be followed.

DR. A. W. BRAYTON: I wish to speak to that point. I am always looking for trouble, if I give one-twentieth grain of arsenic three times a day, as I usually do, but I have not had trouble. I was perturbed about giving salvarsan freely as I read these articles recording deaths and accidents, but I comforted myself with the fact that we have taken very great precautions in our clinic. Every patient has been subjected to careful examination—the indigent the same as our office patients, and we have not met with any accident in our clinic or in our offices to deter us in the use of salvarsan. We have not, except in one or two cases, had to send a physician to the home of the patient because of anything that happened following the use of a thousand dollars' worth of salvarsan. Why are we so blessed here in Indianapolis? This matter of deaths has been tremendously overworked. They do not occur in the United States. It started in France, from national and professional jealousy. Salvarsan has been given thousands of times in Indianapolis. It should be used by every intelligent physician in his routine treatment of syphilis. In a large number of reported cases treated early and intensively with salvarsan—three or four doses in a month—the cure was so complete that reinfection took place! Salvarsan should be used early to protect the patient, the family, the community and to eradicate syphilis from society.

There is probably less danger from giving salvarsan than from giving an ordinary anesthetic. I would feel much safer to give every person of the one hundred present here a dose of salvarsan between now and midnight than to attempt to anesthetize each of you with chloroform. The danger would be a great deal more from chloroform. I could give an injection of salvarsan to each of you fit for ordinary life insurance, and let you take your trains home without any unusual precaution. Salvarsan does not put out the eyes; salvarsan does not destroy the hearing; salvarsan does not arrest the heart or circulation. It is syphilis that causes these horrors. Salvarsan is the hope of the future in the treatment of this disease.

DR. F. C. HEATH, Indianapolis: It may not be out of place to say a word on the question as to whether syphilitic eye lesions are a contraindication of salvarsan. I wrote a paper on the subject last year, and after a very careful review

of the literature and of the cases seen in the experience of eminent oculists, I came to the conclusion that no eye lesions are a contra-indication of salvarsan if they are syphilitic eye lesions. Fordyce says a syphilitic optic neuritis calls for salvarsan, because it acts more quickly than any other remedy. You are confronted with a disease which is very dangerous to the eyesight, and therefore it is your duty to use the remedy that gives the most promise of saving the eye.

On the question of the atrophy of the optic nerve, it is different, and we are still a little bit in doubt. Some report slight improvement, and some report cases where the condition seemed to progress more rapidly after salvarsan than before. I have had salvarsan used in two cases of optic atrophy, and they both went on to blindness; but they were both going on to blindness under the usual treatment. Atrophy of the optic nerve is practically a hopeless condition. In twenty-two years of eye practice I have not seen more than two or three cases of optic atrophy that were arrested by any mode of treatment. My rule is this: If there is no arrest of the condition by the careful use of mercury and the iodids and strychnin, I will give the patient the benefit of the doubt and use salvarsan.

DR. A. E. STERNE, Indianapolis: It might be apropos to append a few words to what Dr. Heath has just said, inasmuch as atrophy of the optic nerve as an evidence of a former syphilitic condition is quite on the theory that the conditions we find in neurology are parasyphilitic. The neurologists, I think, were formerly of the opinion that any central nerve lesion, whether of the eye or more general, was a contra-indication of the use of salvarsan. I think practically all of them have retreated from that viewpoint, and there is, so far as I know, no marked feeling among neurologists that salvarsan is not indicated where there has been evidence of syphilis, or where we have a positive Wassermann reaction. We must remember, along the line Dr. Heath has mentioned, that where a patient with an optic atrophy going on to blindness does not do well in a short time under the antisymphilitic treatment, the chances are he will become worse under the continued use of the iodids and mercury. That has been the common experience for years and years, so that salvarsan does not add anything now to that. But I agree with Dr. Heath absolutely when he says that these patients go on to blindness anyhow. These patients go on to degeneration anyway, and it is very doubtful whether salvarsan hastens that to any appreciable degree.

I had expected in the beginning of the use of salvarsan to find considerable numbers of acute arsenical palsies, but they have not developed; I have not seen one, except possibly in the beginning where undoubtedly the faulty use of salvarsan was as much to blame as the drug itself.

Just one word on the subject of the Wassermann reaction. I have to ask a question of the essayist, and that is, whether the neurologists are at fault in placing more reliance in parasyphilitic cases—not the acute cases, but the parasyphilides—whether we should rely as we usually do, more on the lymphocyte count in the spinal fluid than on a positive Wassermann. I frequently find a positive Wassermann and no increase in the lymphocyte count, and it is in those cases that I have felt salvarsan is particularly indicated. Whereas in those cases where we find an increase of lymphocyte count in the spinal fluid, I feel that the use of salvarsan is not indicated. I may be wrong; I would like to have some information on this. In other words, I trust the lymphocyte count more than a positive Wassermann reaction.

DR. BEALL (closing): I would subscribe most heartily to what Dr. Thrasher has said about the luetin test. My conclusions from these tests that I made were that the test undoubtedly had some elements of a specific test, but that at present we cannot rely on it in diagnosis of doubtful cases; that possibly with an improvement of the preparation it may give us a test for syphilis which has the advantage of simplicity and which everyone can do.

As to the bugaboo of deaths from salvarsan, the most sane conclusion I think that anyone has reached about this is McKenzie, in his book on the Wassermann reaction, salvarsan and syphilis. He investigated every death that had been reported following the administration of salvarsan. That book came out at the beginning of this year. Included in the deaths assigned to salvarsan were some that had occurred days and weeks afterwards, and when he had excluded these cases, cases in which death could be readily assigned to other causes, he found there were but fifty deaths from salvarsan. The manufacturers at that time had sold considerably over one million doses. That will make the death-rate following salvarsan less than the death-rate from anesthetics.

DR. EHRICH, Evansville (closing): Dr. Rhamy and Dr. Charlton both spoke about the staining of the spirochete. I mentioned in my paper that I regarded the dark field illuminator as the most satisfactory way of finding the spirochetes, and also mentioned that for the general practitioner this was not practical, and advised the India ink if the general practitioner wanted to look for the spirochetes himself without getting this apparatus. I still believe the India ink is most satisfactory outside of the dark field illuminator. In those cases in which I have found spirochetes with India ink, they developed syphilis; and those in which I have not found spirochetes have not developed syphilis.

So far as a repetition of salvarsan goes, I do not believe it necessary. I believe I stated in my paper that salvarsan would kill any spirochete

with which it came in contact. I believe the first injection will come in touch with as many as subsequent injections, therefore, I believe one injection is all that is necessary.

There seems to be a preponderance of opinion in favor of the salicylate of mercury. I do not use this because I find it irritating. I use metallic mercury made up with lanolin.

One doctor asked for the technic for giving salvarsan. When I started to give salvarsan I used the apparatus of Dr. Heidingsfeld, but there was too much apparatus. Then Abner Post of Boston had a good arrangement, but there was too much apparatus there too. I use simply a percolator. The needle is a Chetwood needle. It is fitted with a little plug that connects with the apparatus. I get the needle into the vein, and when I get a flow of blood I connect up the plug and have no danger in getting the salvarsan into the tissue. When I began giving salvarsan I exposed the vein. I do not do that any longer when I use this needle.

GONORRHEA IN RELATION TO PREGNANCY AND THE PUERPERAL PERIOD *

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These notes being essentially the result of personal experience and observation, authorities and literature are not quoted, the writer feeling that such sources of information are as readily accessible to his hearers as to him. He trusts, however, that this paper may prove the nucleus of an interesting and instructive discussion. Presuming that the pathology, likewise symptomatology of gonorrheal disease *per se* are well understood, we will make mention of them only as necessary to elucidate some definite point under discussion; nor will its relation to extra-uterine pregnancy be considered.

For our own guidance we have formulated the following classification of gonorrheal disease in its relation to pregnancy, which, while by no means to be considered authoritative, has the merit we believe of being simple and readily understood.

The general classification naturally is into acute and chronic gonorrhea.

ACUTE GONORRHEA

1. Infection present at the time of uterine implantation.
2. Infection occurring during the first four months of pregnancy.
3. Infection occurring during the fourth to seventh months.
4. Infection occurring between the seventh month and time of delivery.
5. Infection occurring after delivery, during the lying-in period (very rare).

CHRONIC GONORRHEA

May be divided into active and latent forms.

(A) *Active form.*

1. Simple chronic gonorrhea in which the disease runs an unchanged course during the entire pregnancy and puerperium.
2. Acute exacerbation of a chronic gonorrhea, occurring during any period of the pregnancy or lying-in period. Same classification may be used as in the acute form.

(B) *Latent form.*

1. Gonococci demonstrable, but subjective and objective symptoms negative.
2. Gonococci undemonstrable, but previous history, subjective or objective symptoms suggestive.

It may be noticed the so-called subacute form is not taken into account. In this the writer follows the lead of modern pathologists and most clinicians. He believes this condition, if such there be, has no practical clinical importance in relation to the subject under discussion, the treatment to be effective being that given either the acute or chronic form.

We desire also to direct your attention to the classification of the acute disease corresponding to the period in which it manifests itself, our observation having taught us that the treatment should differ according to the period of pregnancy, as the liability of terminating the gestation, due to the treatment or from activity of the disease itself varies at different stages.

The general health of the pregnant victim is affected to no greater or lesser degree than is that of the non-pregnant woman. There is always a chance of abortion, miscarriage or premature delivery in the presence of a chronic gonorrheal endometritis, an acute exacerbation or a primary acute gonorrheal endometritis present at the time of uterine implantation. This danger is greater during the first four and last two months, necessarily varying according to the severity of the inflammation, the ability of the tissues to resist its influence and the general resisting powers of the woman.

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The greater possibility of such accidents happening at the above-mentioned periods is due, in our opinion, to at least two important factors: First. During these times the tissues are at their greatest degree of hyperemia; and while theoretically it would seem that this engorged condition, following Bier's theory, should act as an efficient antiphlogistic, the increased amount of blood in conjunction with the accompanying tissue changes, acts as an excellent soil for the florid propagation and increased activity of the specific germ. As an example may be mentioned the frequent flaring up in non-pregnant women of a latent gonorrhea shortly before, during or shortly after a normal menstrual epoch. Second. During the early and late term of pregnancy the physiologic calls made on the uterine tissues are greatest, thus lessening their ability to effectually resist or combat inflammatory influences.

The effect of primary acute gonorrhea occurring after uterine gestation is established is a point on which there is wide divergence of opinion. Our personal belief is that in such instances the danger of interrupted pregnancy is not as great as in the presence of the chronic disease, and not nearly as great as is commonly supposed. Candidly, we feel that it is much more frequently due to unnecessarily energetic local measures instituted by the attendant, whether these be simply application of stringent medication or instrumental manipulations, than to the effect of the disease itself.

The complications in the pregnant are practically the same as those in the non-pregnant. Especial mention, however, should be made of involvement of Skene's or Bartholin's glands. Aside from the effect on the patient, the danger here is that the pressure of the descending part and muscular contractions in labor tend to cause an expression of the glandular contents, thus strewing the path with a prolific source of infection when brought in contact with the fetal parts; and it is well to remember that danger to the newborn is not solely to the eyes.

Owing to the time allotment, general methods of treatment only will be mentioned. Conservatism and individualism should be the keynote; yes, one is almost tempted to say ultraconservatism. Undoubtedly, the general practitioner is handicapped in the treatment of these cases. Most women do not engage their attendant until well advanced in pregnancy, and of those who do see their physicians early many refuse preliminary examinations. Whenever possible, however, careful microscopic examination of urethral, vaginal and cervical smears should be made.

The diagnosis established, it must be borne in mind that the objects of any treatment are to cure the disease as quickly as possible; to keep the patient in comfort; to prevent complications; to prevent infections of the child during delivery; to inhibit exacerbations during the lying-in period and to minimize remote effects. Frequently the attendant, especially he who has had but slight experience in such cases, becomes panicky, and in his anxiety over future possibilities, does too much, and thus aids in the production of the very conditions he is trying to prevent.

Heat (as per sitz baths and per vaginal irrigation), the procedure par excellence in the non-pregnant, is naturally contra-indicated in the pregnant woman. Instrumentation has no place in the treatment of the disease during pregnancy or the puerperium. Indeed, the frequent use of the vaginal speculum with accompanying mopping and swabbing of the upper vaginal spaces and cervix and the possible accidental or intentional introduction of an instrument or medication into the cervical canal is at least questionable, if not absolutely unwise treatment.

The above holds good to some degree in regard to urethral treatment. If irrigations are used it may be best to give them yourself and not depend on the carelessness or unskilfulness of the patient or an untrained attendant. Nor is it advisable for obvious reasons to follow the medicated gauze or wool tamponage method.

If the infection is unusually severe and energetic treatment is considered necessary, it should be remembered that from the fourth to the seventh month is the time that the parts are most tolerant, and this the period during which such treatment may be most safely carried out.

Never must it be forgotten that the patient as well as the disease merits consideration. More active measures can be adopted with the evenly poised healthy woman, who is carrying well, than with the high-strung neurotic creature or the delicate woman who is not carrying well, both of which latter types are prone to react quickly and unfortunately.

On the whole, we have found the mildly medicated suppository in conjunction with personal irrigation, plus internal medication as specially indicated, to be the safest and simplest treatment for the patient, though we make no claim of greater efficiency.

Complications must be handled as the individual case demands. As regards the management of infected Bartholinian glands, one may incise and drain, then pack with gauze and cover during labor, or simply protect with gauze. Here, again, the individual case is the best guide. If there is

considerable abscess formation, it would seem more advisable to incise and drain before descent of the presenting part than to take chances of its rupture during delivery.

The application of forceps in the presence of active gonorrheal infection is also a much-mooted question. According to some authorities, the bruising and probable laceration of tissue coincident to such procedure increases the danger of post-partum specific inflammation; whereas, according to others, the prolonged pressure of the presenting part on the tissues of the parturient canal causes such devitalization and lessened resistance as to produce the same effect, besides increasing the probability of infantile contamination.

Our own practice is to consider the virulence and character of the infection, plus the indications for interference; and under ordinary circumstances to give the benefit of the doubt to the mother's power of combating infection, keeping forceps off as long as we safely may in the interest of mother and child.

The immediate repair of perineal tears when there is profuse gonorrheal discharge also meets with variance of opinion. The possibility of sealing gonococci into the wound or of the repaired wound surfaces becoming specifically contaminated should be considered. Usually it seems to us best to thoroughly cleanse the parts and repair at once. We have at times resorted to the method of A. Laphorn Smith of Montreal of introducing perineal sutures before the laceration has occurred, thus appreciably shortening the time necessary after delivery for repair, besides lessening the danger of infecting the raw surfaces from prolonged exposure to specific material.

In view of the fact, however, that in non-hospital practice, we now and then see cases in which it seems impossible to so thoroughly cleanse or care for the wound as to preclude the above possibilities, and considering also that frequently repairs under such circumstances show rather unsatisfactory results, one is justified at times in not immediately repairing. Such has been our practice on occasion, and shall continue so to be whenever in our judgment it seems best.

As regards immediate closure of cervical tears, we feel that only for the most urgent reasons should it be attempted. Not alone do the necessary reparative manipulations increase the danger of carrying infection into the body of a uterus previously clean, but the possibility of resultant excessive contracture of the cervical os or canal, causing interference with free drainage, is sufficiently great as to make the procedure undesirable.

A fortunately rare complication is the rupture of pus tubes during delivery. It is questionable whether this should be considered solely due to gonorrheal disease, for if the pathology of gonococcus infection of the tubes is considered, it will be remembered that this condition is more commonly bilateral than single, that the tendency is toward a decided thickening of the tubal walls, and a sealing up of the fimbriated extremities associated with peritubal adhesions, which still further protect the part, so that if pregnancy is at all possible it is indeed problematic whether such tube, if purely gonorrheal, will rupture; and the probability is that secondary infection has so liquified the tissue and thinned the walls that rupture may occur under aggravated pressure. This is still further substantiated by authentic statistics which show that only rarely if ever can the gonococcus be detected in the pus of ruptured or unruptured pus tubes, even in cases where the clinical history is absolutely positive.

Such possibilities emphasize the importance of early examination, for then at least we may frequently be forewarned. Unhappily, the condition is not easily diagnosable, and it seems to us the only rational treatment is laparotomy.

The treatment of specific puerperal infection is entirely different from that of infection due to other organisms, likewise to some extent the symptomatology. While not at all popular at present, it should and undoubtedly will become the routine practice of obstetricians to make frequent bacteriologic examinations of the lochial discharge. The benefits of this are obvious, but it must be remembered that while the search for gonococcus is usually unsuccessful during the bloody lochial stage, the discharge soon becomes purulent, and then the germ may be readily detected by microscope or pure culture.

The symptoms of a gonorrheal post-partum infection are not as sharply defined as are those of other types of infection. Chills, if occurring, are of a more masked character. Temperature as a rule does not go as high or ascend as rapidly as in the purely streptococcal or staphylococcal forms. This is due we believe to the fact that the gonotoxin is not as readily diffusible, and therefore systemic intoxication is more slow. Pain and discharge, however, seem to be greater, probably due to the distinctly local reaction of the specific poison.

While it is to be understood that a purely gonococcal invasion is extremely rare (we have never seen such) there usually being a mixed infection, it seems that the gonococci or their toxin exert some inhibitory influence on the activity of the other germs present. Whereas localized or gen-

eralized pelvic peritonitis may be a more or less frequent complication, a diffuse abdominal peritonitis in the presence of gonococci is not common.

Within the last few years there have been reported some cases of gonococcemia or gonococcus septicemia. This condition is exceedingly rare, and can only be definitely diagnosed by thorough blood examination and culture, as there are no special manifestations which differentiate it from the more common forms of bacteriemia.

If, however, we care to accept the findings of Lofaro, the popular belief that the gonococci but infrequently invade the blood-stream must be revised, for according to King of Buffalo, he finds that "In examination of the blood of patients, suffering from the various forms of gonorrheal infection, the gonococcus was present in a large percentage of cases. In the cases classed as 'vulvitis' and 'vaginitis,' the germs were found in the blood in 50 per cent. In the different forms of gonorrhea in the male, the percentage was still higher." No statement is made, however, as to the number of such proved cases showing systemic symptoms.

Undoubtedly, gonococcus septicemia is a grave, although not necessarily fatal complication, its danger being in the possibility of ulcerative endocarditis and other similar involvements. The treatment, it seems to us, must be individual, and here more than ever is complete rest a potent factor for good.

The treatment of specific puerperal infection should be conservative in the extreme. Complete rest, good drainage, local analgesics and antiphlogistics combined with internal medication as indicated, are as a rule all that is necessary for recovery. Operative procedure, except in extremely rare instances, is entirely uncalled for; promiscuous intra-uterine douching or curettage, in any event risky without preliminary microscopic examination of the discharge, is in the presence of gonococcus infection not alone unwarranted, but absolutely vicious and dangerous, and cannot be condemned in too strong terms. Such action fires up the infection, may cause involvement of the adnexa and in many instances ultimately results in the unsexing of the unfortunate victim.

Paradoxical as it may seem, the obstetric surgeon of experience is usually relieved when convinced that the post-partum infection is specific, for then at least his prognosis as regards the life of the patient is good, for gonorrheal disease rarely kills. One should be guarded, however, in opinions expressed concerning the functions and ultimate result on involved organs.

Before closing, we wish to devote just a few words to posture as an adjunct to proper treatment after delivery. We formerly more or less frequently found in a perfectly normal puerperium that after two or three days the lochial discharge had become distinctly odorous. In our endeavors to find the cause, we came to the conclusion that this, to a great extent at least, was due to the nearly horizontal position of the patient, soon causing a sinking of the pelvis into the mattress, thus interfering with good drainage by gravity, and in consequence favoring an accumulation of the discharge in the vagina and a resultant fetor. We thereafter followed the practice of placing our patients as early as possible in a modified and at times complete Fowler position, with the repeated satisfaction of seeing a much freer and only rarely a faintly odorous flow.

If this be true of a normal case, how much more necessary is it for us to insure free drainage in infected cases, where the danger lies not alone in putrefactive change of the lochial discharge, but where back flow of the accumulated septic material, due to change in the line of gravity, cannot help but increase the probability of progressive infection by diffusion of infected discharges over contiguous raw surfaces; and we earnestly advocate this position in all cases where systemic conditions (usually cardiac) do not too strongly contra-indicate it.

The writer holds an optimistic opinion as to the immediate outcome of such specific infections. While it is true that one sees dangerous or even fatal puerperal infections in which gonococci may be definitely demonstrated, it will usually be found on careful analysis of the case that the unfortunate termination was due to preponderant streptococcus or staphylococcus infection, or to some other independent or complicating cause.

We submit for your consideration the following conclusions:

1. That chronic gonorrhea or an acute involvement of the endometrium present at the time of uterine implantation, is much more serious as regards the successful termination of pregnancy than primary acute disease occurring after gestation is established.

2. That individualism and conservatism in treatment show the smallest percentage of serious complications and the best ultimate results.

3. That post-partum infections are best treated by absolute rest and good drainage, operative procedure being undertaken only after careful consideration of specific indications.

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THE CAUSE AND TREATMENT OF CONVERGENT SQUINT *

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Considerable difference of opinion exists as to the management of cases of squint, or what is more properly termed strabismus, if we are to judge by the teaching and practices of many members of the medical profession. Not a few general physicians give the pernicious advice that the child suffering from squint will outgrow the trouble, and even ophthalmologists are not altogether agreed as to when and what kind of treatment should be instituted.

Whatever exceptions may be taken to the ordinary definition of squint we may accept, for all practical purposes, the statement of de Schweinitz, who says, "Under the general term strabismus or squint are included those conditions which occur when the visual axis of one eye is deviated from the point of fixation." We may further describe the condition as a faulty coordination of the two eyes which presents itself as a manifest deviation of the visual line of one of the eyes.

In all cases of ordinary concomitant squint the separate movements of each eye are perfect, and this distinguishes the condition from the squint due to paralysis. The eye which is directed toward the object looked at, is known as the fixing eye, the other as the squinting eye.

Of the varieties of squint we recognize the periodic, constant, alternating and monocular. According to the direction of the deviation, we recognize internal, external and vertical squint. The internal convergent squint is by far the commonest, and it is to that form to which attention is here directed.

Worth says that two essential conditions are present in every case of concomitant convergent squint: (1) An abnormal convergence of the visual axes, and (2) a defect of the fusion faculty. He further says, that other conditions may also be found, including (1) suppression of the vision of the eye which is not being used; (2) in rather rare instances more or less congenital amblyopia; (3) acquired amblyopia in the deviating eye as a result of neglect or inefficient treatment; (4) a refractive error, commonly hypermetropia and hypermetropic astigmatism.

The relative frequency with which squint is seen, and the unsatisfactory results secured from the usual treatment with glasses and operation,

indicates that in general our knowledge concerning the cause and pathology of squint is incomplete, or that we do not properly apply our knowledge in the management of such cases.

Priestly Smith contends that all eyes are amblyopic at birth, and reach the normal standard of vision only after several years. We know that during the first few months of life the movements of the eyes are uncertain and not completely controlled by the higher centers of the brain. The eyes move more or less together, but the slightest disturbances often causes one or the other eye to deviate.

Thus we frequently obtain a history of squint in children dating from teething, convulsions, whooping cough, a severe illness or other alteration in the health of the child. In many instances the first efforts toward accommodation and convergence, as when attempting to concentrate the vision on playthings, results in squint. These are but incidental factors, and back of all is a defect of the fusion faculty, and coupled with this there is usually a refractive error and rarely a certain amount of congenital amblyopia.

Worth says that the fusion faculty of a child begins to develop a few months after birth, is well advanced by the twelfth month, and complete before the end of the sixth year. When the fusion faculty has begun to develop, the instinctive tendency to blend the images formed in the two eyes will keep the eyes straight. If the fusion faculty develops later than it should, or it develops imperfectly or not at all, then there is nothing but the motor coordinations to preserve the normal relative direction of the eyes, and anything which disturbs the balance of these coordinations will cause a permanent squint. This provocation is supplied by an error of refraction, common to both eyes or existing in one eye only, or imperfect vision in one eye due to congenital amblyopia, opacities in the media, and intraocular diseases.

An uncorrected hypermetropia causes a tendency to abnormal convergence of the visual axes. This is due to the association of accommodation and convergence, for the hyperope increases his stimulus to convergence with any increase of the accommodation. In looking at a near object, there is an abnormal effort of accommodation to overcome the hypermetropia, and this is accompanied by an abnormal effort of convergence. Donders considered this to be the cause of convergent squint, and he advised correction of the hypermetropia for the cure of the squint.

On the other hand, Worth contends that if the fusion sense is perfect no amount of hyper-

* Read before the Indiana State Medical Association at Indianapolis, Oct. 8, 1912.

metropia will cause squint, but that if the fusion sense is deficient, the eyes are free to yield to the increased stimulus to convergence accompanying hypermetropia and a convergent squint is the result. The reason that hyperopic infants seldom develop squint before the fusion sense begins to develop is because infants do not use the accommodation at an early period and hence have no unusual stimulus of convergence. Worth further says that the degree of the refractive error has nothing to do with the question of whether the patient shall or shall not squint, though he says that when the squint is established, the refractive error becomes a very important factor. He contends that inasmuch as the majority of hypermetropic children do not squint it is evident that hypermetropia is not the essential cause of the squint.

Inequality of vision due to amblyopia, anisometropia, opacities or intraocular diseases of one eye may predispose to squint by making binocular vision more difficult. Congenital amblyopia is rare, but anisometropia is relatively common. One eye may be emmetropic and the other hypermetropic, requiring an increased amount of accommodation and convergence, or the deficient vision in one eye may result in a failure of stimulation of binocular vision. The latter is also a reason for the deviation due to opacities or intraocular diseases.

In the beginning a squint may be periodic, but persistence of the causes will result in permanency of the squint. The advice given by numerous practitioners to the effect that squint may be outgrown is pernicious, and has often resulted in permanent impairment of sight in the squinting eye from disuse. The younger the child the more rapidly does this amblyopia from disuse occur.

Statistics show that fully 75 per cent. of all cases of convergent squint begin before the end of the fourth year, and that 10 per cent. begin before one year. By far the greater number of cases occur as a monolateral squint. Alternating squint is more apt to appear in early infancy and usually passes into monolateral squint later. The deviation increases in degree up to the time of puberty, after which time it sometimes shows a tendency to become gradually less, though the amblyopia increases from disuse.

With the onset of squint the development of the fusion sense ceases except by artificial means, and if the fusion sense is not developed in infancy and early childhood it will never develop at all to any useful extent. This accounts for the fact that delayed treatment of squint by means of glasses, operation and orthoptic train-

ing seldom results in the acquisition of binocular vision. The deformity may be more or less removed by delayed treatment, but accompanying the failure to develop the fusion sense at an early age goes amblyopia from disuse, and the deviating eye loses a considerable amount of visual power that might have been preserved by appropriate attention at the onset of the squint.

The proper treatment of squint, therefore, includes (1) recognition of the necessity of giving attention at the beginning of the squint; (2) correction of the error of refraction; (3) orthoptic training; (4) operative treatment.

The necessity of beginning treatment early is evident if we take into consideration the fact, as pointed out by Worth, that "a child with good vision in each eye, who develops a constant monolateral squint at the age of 6 or 8 months, will, in the absence of proper treatment, become rapidly blind in the squinting eye. This loss of vision in the deviating eye is so rapid that the power of central fixation is often lost within eight or ten weeks." As the child grows older the progress of the blindness is less rapid. An eye which begins to deviate constantly at the age of three years seldom quite loses the power of central fixation in less than a year, and if the squint first appears after 6 years of age, central fixation is seldom lost, and amblyopia exanopsia seldom takes place to any great extent after that age. Worth also points out that acquired amblyopia is a true loss of vision, not a failure of the function to develop.

Inasmuch as an error of refraction with its increased stimulus of convergence and accommodation has a tendency to disturb binocular vision, it is of the utmost importance, as pointed out by Donders, that the error of refraction should be corrected in every case of squint. All may not agree with Worth, who says that "no infant is too young to wear glasses should they be required," but all who practice the principles laid down by Worth must admit that the results justify the means, and if many ophthalmologists would prescribe glasses at the beginning of squint, even if it necessitates the wearing of spectacles before the patient is 1 year of age, and supplement this by orthoptic training, there would be fewer squints that come to operation for cosmetic effect, and fewer amblyopic eyes from failure of development of the fusion sense.

The determination of the refractive error must be by means of retinoscopy under complete cycloplegia from the effects of atropine used three times per day for from three to eight days. For young children 1 per cent. atropine ointment is preferable to drops. Practically the full correc-

tion should be given, including the correction for any astigmatism that may exist. The lenses, made reasonably large to increase the field of vision and prevent the child from looking over them, should be placed in a comfortable fitting spectacle frame, with broad nose piece to distribute the pressure, and in the case of very young children the spectacles should have eyelets in the temple pieces so that a string or tape may be inserted and tied around the head for the purpose of holding the spectacles in position. The careful fitting of the frames so that the proper pupillary distance is preserved, and the lenses placed as near to the eyes as possible without having the eyelashes touch the lenses, is quite important as one of the features adding to the success of the treatment.

It is always advisable to continue the cycloplegia under atropine until the glasses have been secured, as the child accommodates himself to the glasses more readily if he does not have to overcome the latent error. He instinctively discovers that he can see better with the glasses than without, and by the time the effect of the atropine has disappeared he has acquired the habit of wearing the glasses. The glasses should be worn constantly except when the child is asleep or having the usual toilet operations performed.

After the glasses have been adjusted an attempt should be made to restore, as far as possible, the sight of the deviating eye by forcing the child to use it. This may be accomplished by occluding the fixing eye with a gauze pad secured by bandage or adhesive strips. This occlusion pad should be worn continuously for three or four weeks, during which time the vision in the deviating eye usually has improved to a considerable extent. The pad is then omitted and the accommodation in the fixing eye only is paralyzed with atropine, thus forcing the patient to use and therefore to exercise the deviating eye with a corresponding improvement in the vision. Either a 1 per cent. solution or a 1 per cent. ointment of atropine should be employed and applied once or twice daily. It should be continued for several weeks or months, or as long as improvement in the vision of the deviating eye continues. When the vision in the deviating eye is approximately normal and the eyes appear practically straight, the atropine treatment may be discontinued temporarily for the purpose of noting the effect. If, after the effect of the atropine has disappeared, the previously deviating eye returns to its former habit, then the atropine treatment should be resumed.

This atropine treatment for the fixing eye is an exceedingly efficient curative measure and should be continued until the visual acuity of the squinting eye becomes equal, or nearly equal, to that of the fixing eye, or until the deviation disappears, or until the child's fusion sense may be trained. Worth contends that the treatment will always prevent the deviating eye from becoming amblyopic, and its efficiency in that direction will be greater the younger the child and the more recent the deviation. "The best results are obtained in children who are not more than 4 or 5 years of age. After 6 years of age usually not much improvement in vision can be obtained."

The practice of using atropine in both eyes of a squinting child, on the theory that the convergence will be lessened by paralyzing the accommodation, and of advising that glasses should not be worn by very young children, is pernicious, though followed by many physicians. A certain way to increase the amblyopia of a deviating eye is to favor disuse of the eye by paralyzing its accommodation.

For training the fusion sense, Javal, Landolt, Priestly Smith and others have advocated various orthoptic exercises with stereoscopes, but recently the amblyoscope, devised by Worth, has come into general favor. As described by Langdon (de Schweinitz' Diseases of the Eye):

"The amblyoscope consists of two tubes, one for either eye, each having its own illumination, which can be increased or lessened so as to equalize the visual impressions in case one eye is amblyopic. An object-slide is placed in the objective end of each tube, and is reflected in a mirror at the bend of the tubes, which is placed at the focal distance of convex lenses fitted in the proximal ends of the tubes, so that no accommodation is necessary. The proximal ends of the tubes are hinged in such a manner that they may be adapted to a convergent strabismus of 60 degrees or a divergent strabismus of 30 degrees.

"The child's vision should be tested, if types or other signs cannot be utilized, with small, white ivory balls, each with a diameter varying from $\frac{1}{2}$ inch to $1\frac{1}{2}$ inches. Each eye is tried separately, and the child is required to pick up the ball, which is rolled with a twisting movement. If this test reveals that one eye is amblyopic and possesses one-sixth or less of visual acuity, some form of blinder exercise should be instituted to improve the defective visual acuity. Preceding the exercises with the amblyoscope, the angle of strabismus should be measured according to the methods elsewhere described, the refractive error having been carefully and fully corrected, and the glasses being in position and during all of these exercises the glasses must be

worn. Amblyoscope training should be begun as soon as the child is old enough to look at ordinary pictures and to talk about them, because deviation yields far more readily to these exercises in young children than in older ones, and, moreover, after the sixth year it is usually practically impossible to make any satisfactory impression on the defective fusion-faculty. A child of 3 years is well able to take part in these exercises, especially if they are so conducted that they represent to him a game in which he may readily be interested. Usually one or two sittings a week, each occupying half an hour, are sufficient. The child should be seated on a chair, between the surgeon's knees, and the angle of the tubes approximated to the angle of strabismus. Next, the illumination, which may consist of two electric light bulbs, two lamps or two candles, equally distant from each tube, are arranged, and an object-slide is placed in each holder. These object-slides should consist of pictures familiar to young children, but the ones used at first should be quite dissimilar; for example, the picture of a bird and the picture of a cage. The child is now required to look into the tubes, and is asked what he sees. If one is amblyopic to any considerable degree, it is probable that the image of the object before the better or fixing eye will be the only one which is visible. Hence, the illumination must be altered before the other object-slide can be seen by diminishing the light before the fixing or better eye, and increasing that before the amblyopic or squinting eye, continuing with this regulation of lights until both objects are visible and can be described by the child. This alteration in the lights can be accomplished in various ways; for example, by changing the distance of the lights, as Mr. Worth suggests, or by adapting to the amblyoscope, as the writer has done, a revolving wheel, which contains smoked lenses of different densities, and which can be turned before the non-amblyopic eye. Each object should be seen clearly, and the exercise should be varied with several pairs of object-slides. Next, the child is required to place one hand on each of the surgeon's knees and to tap that knee on the side on which the picture of the bird is seen. If the angle of the tubes is rapidly altered a position will be found where the slightest movement of the tubes causes the picture of the bird to pass directly through from one side of the picture of the cage to the other. But, after continuing the exercises, the bird apparently will go directly into the cage, indicating that the child is acquiring a certain amount of fusing power. If one object is above the other, this vertical deviation must be overcome by means of prisms suitably placed in the grooved back of the focusing lenses. Dr. Nelson M. Black has added a vertical adjustment to the Worth amblyoscope, which simplifies the correction of this deviation. As soon as the child can easily

merge the two objects, more difficult tasks are set, with slides demanding accurate and complete fusion, and by gradually widening the angle of the tube, a range of fusion which varies from 5 to 15 degrees may be acquired by the patient.

"Finally, a series of stereoscopic pictures, intended to teach the child the sense of perspective, are employed. During these exercises, by which the fusion-faculty is stimulated and developed, the strabismus may do one of three things: It may disappear after a few days of training; it may gradually lessen; or it may not alter at all, and operative procedures are required to produce parallelism of the visual axes."

The reestablishment of binocular vision through the effect of training the fusion sense with the amblyoscope will depend in a very large measure on the patient and persistence exhibited in carrying out the amblyoscopic exercises. The training must be carried out by the surgeon himself, and the amblyoscope cannot be used with satisfactory results at the patient's home.

The non-operative treatment of squint as described is successful in a large proportion of cases if made use of sufficiently early. The earlier such treatment is begun, the better the results. After the sixth year non-operative treatment is not usually effective and operative measures are indicated. Operation may cure the deformity, but it fails to produce binocular vision.

Two operative procedures, tenotomy of an internal rectus and advancement of an external rectus, are employed either singly or in combination. No operative measures should be undertaken until the refractive error has been fully corrected and the glasses worn at least six months, the fusion faculty has been developed as much as possible, and the child is over 6 years old. In the majority of instances, as pointed out by de Schweinitz, the operation may be judiciously postponed until the patient arrives at an age when the operation can be performed under local anesthesia and intelligent cooperation of the patient is secured.

Formerly it was the custom to tenotomize the internal rectus without advancement of the external rectus, and owing to the ease with which the operation is performed the custom is retained by a large percentage of physicians. In recent years the tendency among trained and competent observers is to perform advancement of the external rectus in nearly all cases of convergent squint and not tenotomy of the internal rectus either alone or in combination with the advancement. At best a tenotomy is of uncertain effect, and the frequency with which a skilfully performed tenotomy is followed by a steadily in-

creasing effect, until finally a hideous divergent squint is produced, is sufficient to justify the condemnation of tenotomies, except in those cases in which there is a very high degree of convergence. If the angle of the squint does not exceed 30 degrees an advancement of the external rectus of the squinting eye will be sufficient to "straighten the eye." It may be considered also that it is more rational to strengthen a weaker muscle by advancing its insertion, than to weaken a stronger one by tenotomy.

A variety of operations for advancing an ocular muscle have been devised and described. Some operators prefer to shorten the external rectus by tucking or folding the belly of the muscle without disturbing the attachment to the eyeball, whereas others separate the tendon of the muscle from the globe at its insertion, and either with or without shortening, the cut end is secured to the eyeball at a point nearer the cornea than the original insertion.

The essential objection to most advancement or tucking operations is that the immediate results are good, but many of the cases present relapses a few months later, due to disturbance in the nutrition and tone of the muscle advanced, or a failure of the sutures to hold the muscle in its advanced position. The best results are secured from an operation in which the silk sutures, reasonably heavy enough to prevent cutting, are so placed in the muscle that there is little or no strangulation of the muscle's nourishment, but with sufficient anchorage to prevent stretching or tearing, and then securely fixed in the tough scleral coat of the eyeball close to the cornea. Worth's advancement operation is perhaps as satisfactory in this respect as any other operation, and excellent results may be obtained from its employment.

In young children the advancement operation must be performed under general anesthesia, and even in older patients the operation is not without considerable pain under local anesthesia, and general anesthesia becomes advisable. The amount of squint should be carefully estimated before the patient is anesthetised, so that the amount of correction to be made will be known.

A point of considerable importance in the after-attention of advancement operations is to keep the patient quiet and both eyes bandaged for from six to eight days, or until the muscle shall have had time to become rather firmly fixed to its new attachment. The stitches should not be removed short of seven to eight days, and immediately that the eyes are uncovered, the glasses, containing full correction of the error of refraction, should be worn constantly. Fre-

quently the effect of the advancement is improved by employing orthoptic exercises with the amblyoscope, or in the case of older children by using prism exercises. Some operators continue the use of atropine in what was formerly the fixing eye for a period of two to six weeks following the advancement operation, but this is seldom necessary.

If the angle of squint is higher than 30 degrees a tenotomy of the internal rectus should be combined with advancement of the external rectus. This is not done because the advancement cannot be made to rotate the eye sufficiently to correct the squint, but in order to avoid retraction of the globe. Tenotomy of the internal rectus is not justifiable except in combination with advancement of the external rectus, owing to the tendency for the production of proptosis which is prevented by the advancement.

Operative treatment should be the last resort in a case of convergent squint that is seen early. Optical correction of any refractive error which may be present is of first importance. This should be followed by either occlusion of the fixing eye, or use of atropine in the fixing eye only, and last but not least, training of the fusion sense. These means, properly carried out, will not only correct the deformity, which is usually of most concern to the parents of the child, but will also prevent the inevitable amblyopia of the deviating eye which follows disuse.

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GENERAL DISCUSSION

DR. FREDERICK C. HEATH, Indianapolis: After the sound reasoning and the wealth of experience shown in the paper of Dr. Bulson, little remains to be said. There are two points, however, on which I do not agree with the essayist. It does not seem to me to be a sound argument to say that hyperopia is not a cause of squint, as otherwise all hyperopes would have squint. One might as well say that diabetes is not a cause of cataract since many do not have cataracts. I like the emphasis put on non-operative treatment and the age limits prescribed in the paper, but I disagree with the essayist somewhat on the question of operation in the case not cured by non-operative measures. I believe, as I said at our South Bend meeting eleven years ago, that tenotomies should be done rather than advancements in the low degrees of squint, because the operation is easier, less formidable to the patient, less disturbing of the natural conditions, and the results in my hands have been most satisfactory, both immediate and ultimate.

Bettremieux, in the *Arch. d. Ophthalmologie*, March, 1912, favors tenotomy rather than advancement in many cases, his view being that

the first tenotomy should be done on the non-deviating eye; the second one, if needed, on the deviating eye. I reserve the advancement for the squint of high degree.

DR. HEATH (after Dr. Bulson's closing remarks): Not having used the five minutes to which I was entitled and being put in a false light by Dr. Bulson, I desire the privilege of one minute for reply. I tried to state that I was in favor of advancements in high degree. I am sure that Dr. Bulson cannot say truthfully that he has seen any of the bad results in my cases. Perhaps I am so much younger than he that I am not old enough to see these bad results. I can honestly say that if my tenotomies have ultimately given any bad results none of them have made any such reports to me. Bad results occur sometimes after advancements as well as tenotomies, there being no certainty of permanent good results unless the faculty of fusion is established, and the original cause of the trouble thus removed. What Dr. Brose has said on the teaching of Hirschberg confirms my views. I shall continue to do tenotomies in squints of low degree.

DR. L. D. BROSE, Evansville: I use the amblyoscope and wish to endorse what Dr. Bulson has said in his excellent paper, and while I agree that Worth's explanation of non-development of the fusion center is satisfactory in most cases of squint, still there are times when it is not a satisfactory one as exemplified in the following patient:

Leo. H., age 8 years, was sent to me May 9, 1894, because of right internal convergent strabismus of some 25 to 30 degrees. Vision, O.D. 15/Cc. for the distance, and Snellin D.1.00 for the near. O. S. 15/XL for the distance, and Snellin D. 0.50 near. Refraction after the use of atropine O. D. $+ 3.00 \div C. + 0.75$ ax. 90 = 15/xxx. O. S. $+ 4.00 \div C. + 0.75$ ax. 120 = 15/xx. The lenses were given for constant use. May 15, 1894, tenotomy of the right internal rectus and the parents informed that another operation might be needed. Jan. 10, 1897, vision O. D. 15/XL and improved by $+ 2.50 \div C. + 1.75$ ax. 90 to 15/XV. O. S. improved by $+ 3.00 \div C. + 1.25$ ax. 90 to 15/XV. With these lenses either eye he reads Snellin D. 0.50 for the near. This patient has since completed the study of medicine and is now actively engaged in the practice of veterinary surgery. July, 1912, my last examination, O. D. 15/XL, improved by $+ 2.25 \div C. 2.25$ ax. 90 to 15/XV and Snellin D. 0.50. O. S. 15/xxx, improved by $+ 2.50 \div C. + 1.75$ ax. 90 to 15/XV, and Snellin D. 0.50.

During one of my last talks with Professor Hirschberg in Berlin in May, 1891, we discussed squint, and he told me that he had seen a number of patients that had undergone partial teno-

tomies at the hands of New York specialists with bad results. His practice, which I have since followed with success, is the following: When the deviation is 10 degrees or less, do no operation. When it is 15 to 20 degrees, a simple tenotomy. When 25 to 30 degrees tenotomy with slight advancement of the external rectus. When 50 degrees, tenotomy with medium advancement of the externus. With 75 degrees over deviation, a strong advancement with tenotomy of the internus. I agree that the result in my reported case which developed good fusion sense is an exception and not the rule.

DR. J. P. WORRALL, Terre Haute: Mention of concomitant convergent strabismus, the subject of this paper, always reminds me of a remark made by Dr. Thompson many years ago during a discussion on the same subject, that no disorder of the eye caused him so much concern as the condition in question. This remark very accurately describes my feeling whenever I take charge of a case of concomitant convergent strabismus, although I suppose my experience affords as good results as that of any operator. I am entirely in accord with the author of the paper in the principles underlying the treatment—full correction of refraction, orthoptic exercise and, if necessary, operation. In the operation, my object is to strengthen rather than to weaken any muscle, and for reason prefer advancement independently, or in conjunction with tentomy of the opposed muscle.

I have had very satisfactory experiences with the operation of tucking rather than actual advancement. This is an operation which, in case of tearing out of the stitches, cannot leave the patient any worse off than before. The case mentioned by a previous speaker in which the patient, after operation for advancement, was unable to move the eye into the temporal field, was doubtless one in which the stitches had broken loose and in which the result was not in consequence of an advancement, but the result of a failure of an attempt to advance. After all, we are often obliged to be satisfied with a result which is only a success from a cosmetic standpoint, in which binocular vision is not obtained. Perfect success depends on the existence of the fusion impulse and this not infrequently is entirely wanting. I recall a case in which mechanically the result was all that could be desired, the patient had normal vision in both eyes, but the fusion impulse being absent the two images could not be merged. Although they might coincide in position, one being superposed on the other, the two images remained distinct, causing an annoying diplopia that was more troublesome than before the operation.

DR. W. F. HUGHES, Indianapolis: I agree with Dr. Bulson's view. Early treatment is very

necessary in cases of internal squint without paralysis. The glasses should be used as early as possible. I have used glasses on children of two years of age successfully.

The exercise of the squint eye is a very important phase of the treatment. If a cycloplegic in the fixing eye is not a sufficient cause to make the patient use the squinting eye, an occlusion pad should be used. Practically, it is usually necessary to wait until about the fourth year before orthoptic exercises can be successfully used in training of the fusion faculty.

DR. JOHN RAY NEWCOMB, Indianapolis: I am glad to note that Dr. Bulson lays emphasis on the non-operative treatment of convergent squint. I feel that a large percentage of operative procedures had best be left undone. I have in mind two cases which have been under my care for about three years who were operated on in New York. In one the patient has total loss of abduction past the middle line in one eye and marked inhibition of mobility in the fellow eye. In the second case, the patient's eyes five years after operation have returned to the same condition which existed prior to operation. In both cases a tenotomy and advancement were done. I do not agree with Dr. Bulson that patients in middle adult life who have convergent non-paralytic squint are not amenable to non-operative treatment. One patient whose history I had occasion to go over this morning had convergent squint, with vision in the squinting eye reduced to counting fingers at $4\frac{1}{4}$ feet. Under atropine a retinoscopic examination revealed a high degree of astigmatism, the patient wearing, as I remember it, a plus 2.50 Sph., combined with a plus 7.50 Cyl. at an off axis. At the end of one month the patient's vision had improved to 20/100 and the strabismus was no longer manifest. I have had several cases similar during past years and the excellent results obtained have convinced me that there are comparatively few of these cases of non-paralytic convergent squint which are not amenable to treatment, and in which cure is not possible by the non-operative treatment. I will say that I think the majority of failures in this method of treating the condition have been due, not to faulty method of treatment, but to the fact that accurate retinoscopic examinations have not been made. It is a deplorable fact that but a small percentage of ophthalmologists devote the necessary time and care to give their patients careful retinoscopic examinations.

DR. BULSON (closing): I wish to thank the members for this discussion. There has always been some difference of opinion as to the manner of correcting squint, and it is not surprising that we who are here to-day differ on the minor points, though we agree on the general principles.

In my opinion, Worth has laid down a rule which is well worth our consideration when he says that the earlier we attempt the correction of squint the more likely we are to secure satisfactory results. In the early stages it is often possible to develop the fusion faculty, whereas in the later stages about all we can do is to improve the cosmetic appearance. Like Dr. Worrall, I have always felt that it is more logical to strengthen rather than to weaken any muscle, and for that reason I prefer advancement independent of any tenotomy for the less pronounced cases of squint. The ultimate effect of a tenotomy, even in those cases cited by Dr. Heath, cannot be foretold, and I am sure that all of us have seen results several years after an apparently successful tenotomy for the correction of a moderate internal squint which could not be considered as wholly gratifying. The ease with which a tenotomy is performed often tempts us to adopt the shortest route to an immediate good result. This, however, should not be the usual rule of procedure, for the best results for all time should be our one consideration, and the treatment adopted should be the one to give these best results, no matter if it does take a little more time, skill and patience. I am willing to admit that there are cases of squint, of mild degree, which have been well corrected by tenotomy, but, on the other hand, there are similar cases which a few years after the operation have shown bad results through an overaction on the part of the external rectus, or an over-retraction of the attachment of the tenotomized muscle.

I am in hearty accord with the statement of Dr. Newcomb concerning the necessity of giving all cases the benefit of an accurate retinoscopic examination. I fail to understand how any ophthalmologist who makes the slightest pretense of competency can neglect retinoscopy in his refraction work, and especially in young children who are unable to read. The examination should be under complete cycloplegia, and practically the full correction should be given. The use of exercises is tedious and sometimes disappointing through inability to get the patient's cooperation, but in a large proportion of cases the results are far better than they would be without the exercises. In those cases in which it is difficult to carry out exercises, I am in the habit of resorting to cycloplegia of the good eye so as to force the patient to use the squinting eye, the patient wearing the proper correction, and if this does not seem to accomplish the desired purpose, to resort to the blind. However, like Dr. Thompson, I feel that these cases of squint tax our ingenuity and patience, but with the cooperation of parents and patient, there is no class of work which gives us more satisfaction.

SYMPATHETIC OPHTHALMIA, WITH RECOVERY *

F. C. HEATH, M.D.
INDIANAPOLIS

Recoveries from sympathetic ophthalmia are rare enough to warrant the report of such cases, especially where they present some points of unusual interest from which lessons of value may be learned.

Mr. J. H. was brought to my office Jan. 2, 1912, by his family doctor, B. B. Pettijohn. His left eye had been injured the day before by a piece of steel from a file as he was trying to get an iron hoop off a tub. He suffered much pain. Examination showed rupture near the lower corneal margin with some pus about the wound. The eye was very red, pupil oblong, vision reduced to perception of light only. There was some question whether the steel had simply made a penetrating wound or was still in the eye. I suggested that we could not tell positively without an x-ray examination, but they hesitated at incurring this expense, and the eye improved at first under atropin, dionin, argyrol and hot applications. A decided change for the worse about January 12 led them to consent to the x-ray, which was made by Dr. A. M. Cole, and showed the steel a little below the center of the ball, about half way back. With the valuable assistance of Dr. W. F. Hughes this steel was removed by magnet January 14, the magnet point finding it exactly as indicated by the x-ray picture. The eye at once became quiet, practically painless, and showed much less inflammation, former treatment being continued. Two weeks later redness and tenderness increased, at first slightly and then very markedly, and the eyeball was now getting soft. Drs. Morrison and Hughes, who saw the patient with me, agreeing that it would be dangerous to the other eye to keep the injured eyeball in any longer, I enucleated it, assisted by Drs. Hughes and Pettijohn.

The right eye was then apparently in perfect condition, no redness, no tenderness, media clear, vision normal, far and near. Four days later it showed slight redness and the next day some pigment spots on Descemet's membrane with a few particles floating in the vitreous. We at once resorted to Gifford's method of giving 20 grains of salicylate of sodium every three hours, using atropin and dionin in the eye. The next day there was marked improvement. Then it got slowly worse and mercurial inunctions were

added. After a few days without much change it suddenly got very much worse, showing intense redness, violent photophobia, marked edema, pain severe, vision nearly abolished.

The case now looked hopeless. Following Gifford's rule, salicylate was now increased to 360 grains per day, inunctions increased, atropin and dionin doubled in strength. A hypodermic of 1/10 of a grain of pilocarpin hydrochlorate and 1/100 of nitroglycerin was administered, producing profuse perspiration. The following day patient was salivated, but the change in the eye was nearly miraculous—pain gone, tenderness very slight, redness and edema much lessened, media clearing, vision much better and it went on to complete recovery, treatment being continued for several weeks. Aspirin was soon substituted for sodium salicylate and this was changed later to 10 grains of iodid of potassium three times a day. In giving the salicylates in large doses we could only keep it up three days continuously, allowing the stomach to rest then for a day and the ears to recover from the roaring and deafness produced by the medicine.

The final vision was 15/15 with reading of finest print, and the patient resumed his occupation as lineman of C. U. Telephone Co.

Although sympathetic ophthalmia after enucleation has a better prognosis than when occurring before or without enucleation, I am convinced by the severity of the symptoms on the worst day and the wonderful change in twenty-four hours that this eye was saved by the heroic treatment, but just how much credit is due to the salicylates and how much to the mercury, pilocarpin, atropin and dionin, it is difficult to tell. We can safely agree with Gifford and in the presence of such great danger to the eyesight, use every known means of combating the terrible inflammation and thus hope to snatch victory from threatening defeat in many of these apparently desperate and well-nigh hopeless cases.

Newton Claypool Building.

DISCUSSION

DR. W. F. HUGHES, Indianapolis: Through the kindness of Dr. Heath I was permitted to see the patient several times, and can corroborate the report in every way. At the time the salicylates were increased from 240 grains per day to 360 grains per day, the eye as a visual organ appeared to be lost. My explanation for the remarkable improvement following the increased dosage of salicylates is that it was due to the fact that the saturation of the blood by the salicylates was raised to a point at which it was destructive to the causal agent of the infection. I am firmly convinced that the large doses of salicylates were

* Read before the Indiana State Medical Association at Indianapolis, Oct. 8, 1912.

responsible for the successful termination of the terrific disease in the case reported.

DR. J. R. NEWCOMB, Indianapolis: I would like to ask Dr. Heath to give his ophthalmoscopic findings in his case, as they are of importance in my opinion in establishing the diagnosis. I would like to add that my experience with dionin, which I have used extensively for the past three years, has been that solutions do not as a rule lose their effect on the eye under treatment inside of two weeks, and often causing the desired reaction as long as a month. I use first a 5 per cent. solution increasing to 10 per cent. when the first loses its effect.

DR. J. P. WORRALL, Terre Haute: The writer of this paper is to be congratulated on the outcome of this most interesting and illuminating case. In the treatment of sympathetic iridocyclitis, I have nothing special to offer. But in this connection I recall the case of a young woman who had received an injury of the left eye about five weeks previous to her visit to my office. History: Had received a thrust from the point of a scissors and had been under treatment by a local physician, who had made daily cauterizations of the injured eye. A few days previous to her visit to my office the sight of the right eye became impaired. Examination of the injured eye revealed hernia of the iris at corneal limbus, about the size of a mustard seed. Cornea somewhat smoky, anterior chamber deep. Iris somewhat discolored, lens clear, slight ciliary injection and some tenderness. Pupil, when dilated, was pear-shaped, without synechia. Vision 20/CC. The right eye, externally, appeared healthy, refractive media clear, no synechia. Nerve swollen, margins indistinct. Retinal vessels normal, vision 20/100. Patient put to bed, atropia in both eyes, pilocarpin sweats with mercurial inunctions, together with salicylate of soda in 5-grain doses six times a day constituted the treatment. The result was recovery with good vision in both eyes. In view of the fair vision in the injured eye, the question of its removal was answered in the negative, for the reason that in cases of sympathetic trouble the offending eye often is, the only one remaining with useful vision.

The occurrence of the neuritis without involvement of the ciliary body is of interest in considering the etiology of sympathetic ophthalmia.

DR. M. RAVDIN, Evansville: While my experiences with eye injuries has not been as extensive as those of some of you older gentlemen, it seems to me that we are growing too conservative in retaining badly injured eyes and trying to save them when it would have been better had they been enucleated or exenterated immediately. I had one experience with a penetrating injury in the posterior segment of an eye which I tried to save; but sympathetic ophthalmitis set in. The injured eye was immediately enucleated, but in

spite of heroic efforts to save the sight of the other eye it recovered barely useful vision.

The consensus of opinion of European and American observers is that eyes that have sustained badly lacerated, penetrating injuries in the posterior segment, especially with non-magnetic foreign bodies, as copper or brass for instance, and where the foreign body cannot be removed soon enough on account of the vitreous chamber being filled with blood, should be enucleated; for such eyes will ultimately develop panophthalmitis or iridocyclitis followed by detachment of the retina, and the dark picture may be wound up with sympathetic inflammation of the other eye. Hence it has been my practice in such injuries, where the patient is not able to employ an oculist, to watch over him faithfully, to advise the removal of the badly injured eye and thus forestall sympathetic trouble.

As to choice of operation, exenteration or enucleation, I will say that if done early enough, say in the first week, exenteration is reasonably safe, while if done three or more weeks after the injury, enucleation seems to be the safest procedure. I am in favor of exenteration of the eyeball if done early enough, because it leaves a more movable stump for the artificial eye. However, I am aware that oculists of great experience claim that after a year or so the excursion of the eviscerated stump becomes very limited.

DR. HEATH (closing the discussion): Replying to Dr. Newcomb's question I would say that I have never made any extended observation on the long-continued use of dionin, but followed in this case the advice given by some good authorities of discontinuing the dionin for one day in every four. As to the fundus, the nerve head was red. There was general haziness over the field from deposits on the capsule and Descemet's membrane.

In answer to the question concerning ptialism, I will say that we did not care to prevent ptialism in this case, it being the theory of some authorities that the mercurial inunctions should be pushed to the point of salivation, which itself possibly assists elimination. As to the case being rheumatic, I do not agree at all. This patient was perfectly healthy in every way; no symptoms of rheumatism or any other disease. The fact that the eye recovered under the salicylates is no evidence that it was not sympathetic inflammation. Gifford has reported many such results. Dr. Black of Milwaukee reported one very similar to mine in a recent number of *Annals of Ophthalmology*, the vision in his case being, however, somewhat impaired. The explanation of the recovery of perfect vision in this case is undoubtedly due to the fact that the deposits in the central region were entirely absorbed. If the pupils were dilated no doubt some spots could still be seen on the capsule as indications of severe inflammation.

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EDITORIALS

THE USE OF PITUITARY EXTRACT IN OBSTETRICS

In view of the tremendous interest now being taken in questions pertaining to organotherapy and particularly regarding those products which have a so-called specific action on some one or more organs, it is well often to take invoice on both sides of the questions under consideration.

The literature concerning the use of pituitary extract in obstetrics began to appear in 1909, and since that time many articles have appeared concerning both its experimental and clinical use. The lines along which experimentation has been carried out have been in the use of the drug as an oxytocic to induce labor, and in primary and secondary inertia of the first and second stages of labor and immediately after the third stage, in incomplete abortion, to produce peristalsis, to assist the bladder to empty itself and as a galactagogue.

Recently, J. Clifton Edgar has contributed an article¹ presenting his results in seventy cases with the use of pituitary extract to control uterine inertia in the first and second stages and immediately after the third stage and in Cesarean section, and also to induce labor.

From his experiences Edgar derives the following conclusions:

"1. Ampules or vaporales of the drug should alone be employed, as in our experience constant results failed when the pituitary extract in bulk solution was used.

"2. There are three reliable proprietary preparations of the drug now on the market: all of these were used at different periods in our cases.

"3. For decided action, 0.4 gram of the drug is usually called for, although in ordinary cases, with little obstruction, half that dose we found sufficient.

"4. As the effect of the drug lasts but thirty minutes, repetition of the dose is often called for.

"5. Intramuscular injection is usually satisfactory; causing no local reaction or pain. Further, no toxic symptoms were observed from the use of the drug even in maximum doses.

"6. Pituitary extract may be combined with ergot when the action of the former fails, and with heart stimulants in shock cases, without compromising the actions of these drugs.

"7. Pituitary extract has no place in normal labor. The administration should be confined in obstetrics to instances of primary and secondary inertia, to postpartum hemorrhage and Cesarean section, in the last as a substitute for ergot.

"8. The drug produces strong intermittent uterine contractions, often prolonged for several minutes. We have never observed true continuous tetanic uterine contractions (tetanus uteri).

"9. Although theoretically the uterine contractions are intermittent, practically in the face of resistance, the contractions approach to the continuous in character and clinically must be so reckoned with.

"10. Full and even small doses of the drug in the first stage of labor have caused in our cases fatal compression of the fetus, premature separation of the placenta and deep rupture of the cervix.

"11. In the first stage, or where decided obstruction exists in the second stage, I give small tentative doses of pituitary extract, not with complete delivery by means of the drug in view, but to bring the head in easy reach of a simple forceps operation. Seven of our thirty-nine cases were thus treated.

"12. Pituitary extract acted promptly and efficiently in most of our thirty-nine cases of inertia in the first and second stages. Its action was more positive in multiparae than in primiparae: it acted better at full term than in premature cases; also better in the second than first stage of labor when administered shortly after the spontaneous artificial rupture of the membranes. In the nineteen cases in which the drug was used immediately after the third stage for postpartum hemorrhage due to inertia, our results were disappointing. So much so that we consider its action here most unreliable and not as positive as the ergot preparations. In our eighteen postpartum cases we found no effect of the drug in two cases; it was necessary to use ergot in two instances; a hot acetic acid douche in two more; to pack the uterus in seven cases, and in the remaining six cases only were good uterine contractions observed.

"13. In Cesarean section we could not observe any advantage of pituitary extract over ergot, aside from the observation that the former acted more promptly and hence need not be administered so early in the operation.

"14. In induction of labor the drug failed to initiate contractions, but apparently initiated them after the use of gauze, the bougie or hydro-

1. American Journal of Obstetrics and Diseases of Women and Children, July, 1913.

static bag. Our belief is that the drug strengthened already existing contractions not yet apparent to patient or physician.

"15. For primary inertia in abortion cases our results with the drug were disappointing.

"16. For atony of the bowel and bladder and as a galactagogue our results were frankly negative.

"17. The dangers to mother and child in the indiscriminate administration of this drug for primary or secondary inertia of the first or second stages of labor must be reckoned with. Only a few of our thirty-nine cases of inertia were frankly in the first stage of labor, and these were our earlier cases. The remainder were in the second stage or borderline cases just merging in the second stage. We consider the use of the drug in the first stage a dangerous practice, liable to cause death or deep asphyxia of the fetus, separation of the placenta, uncalled-for laceration of the cervix and possible uterine rupture.

"18. We have to report, of our thirty-nine cases of inertia in the first and second stages, two and probably four still-born children due, in our opinion, to the use of pituitary extract, before full dilatation, and three instances of deep laceration of the cervix requiring suture to control the bleeding.

"19. We look on the use of pituitary extract before full dilatation or dilatibility of the cervix as equivalent to the use of ergot at this time. In fact, it is probably more harmful than ergot, by reason of the more powerful contractions produced and the uncertainty of its action.

"20. We have repeatedly observed prolonged tempestuous contractions when the drug was given in the face of too much resistance, closely simulating tetanic contractions of the uterus (tetanus uteri).

"21. The action of the drug is most uncertain. One can never predict in a given case, either from the amount of the drug administered, or from the character of inertia and the obstruction to be overcome, how powerfully the drug will act on the uterus.

"22. We have repeatedly observed both in private and hospital practice that 0.2 gram of pituitary extract, half the usual dose commonly employed, produced such prolonged and powerful uterine contractions that uterine rupture was imminent and anesthesia was required to control the action of the drug on the uterus.

"23. In our opinion, the drug should never be employed for inertia in any stage of labor, unless anesthesia is at hand for immediate use, and preparations complete for immediate operative delivery, if necessary, to avoid uterine rupture.

"24. Finally, with due regard to its action, and possible dangers, pituitary extract is a most valuable addition to our resources for the treatment of primary and secondary inertia."

In connection with this article of Edgar's, it is interesting to review some of the results obtained by Hcaney² on the effect of pituitrin on normal and elevated blood-pressure, and its action on the lactating mammary gland. In his work the drug was administered in three ways: subcutaneously, intramuscularly and intravenously. There were seventeen patients whose blood-pressure ranged from 100 to 134 who were given the drug subcutaneously during their puerperium. In practically all of these little effect was noted on their blood-pressure or the pulse.

Among the eleven treated intramuscularly, five showed an increase in blood-pressure of from 5 to 12 millimeters and the most marked pulse-lowering was eight beats to the minute. These reactions appeared within five minutes and were over within fifteen minutes, and in none of the eleven were any unpleasant symptoms produced.

In eight cases wherein the drug was administered intravenously, a very definite rise in blood-pressure occurred with a corresponding fall in the pulse rate, in one instance the blood-pressure rising from 142 to 200 within one and one-half minutes from time of injection, while the pulse dropped from 76 to 54. These manifestations were accompanied by a decidedly uncomfortable feeling, the patient becoming blanched and pinched in appearance, nauseated, anxious, breaking out in a cold sweat as though really quite ill. These symptoms lasted for a very short time, the patient feeling entirely comfortable again within fifteen minutes. In all of the cases the uterus gave evidence of very distinct contraction.

Since the rise in blood-pressure is due to the contraction of peripheral arterioles, the coronaries sharing in this contraction, it is obvious that there must be a careful selection of cases and a proper consideration for the method of administration in the use of pituitrin.

The author believes that in view of the possible harmful effects to the circulatory apparatus, the subcutaneous injection should be employed for general use.

Interested in the work of Ott and Scott, together with that of Schäfer and Mackenzie on the effect of pituitrin on lactating animals, the author decided to test the effect of pituitrin on the lactation of human mothers. Having observed the effect of pituitrin on the smooth muscle fibers of the uterus, Hcaney conceived the hypothesis that the apparent increased flow of milk was due to a contraction of the muscle fibers of the breast and not to the increased secre-

2. *Surgery, Gynecology and Obstetrics*, July, 1913.

tion at all. For the purpose of demonstrating this hypothesis, he constructed a sort of plethysmograph by which he was able to demonstrate a variation in the size of the breast. With this apparatus he was able to prove very definitely that the increased flow of milk was due solely to a contraction of the muscle fibers and not to an increase in the supply of milk, and, furthermore, that such effect is very evanescent. A second injection is productive of a less marked effect than the first.

From this work it would seem that the use of pituitrin as a galactagogue might be of distinctly more harm than good since the actual supply of milk is not stimulated and the repetition of the drug is productive of a steadily diminishing effect. Furthermore, it must be emphasized with what caution cases must be selected wherein pituitrin is indicated, since any marked alteration of the vascular system means some considerable risk for its use.

TREATMENT OF INFANTILE SUMMER DIARRHEAS BY IMPLANTA- TION OF LACTIC ACID BACILLI

If present-day hypotheses prove out as decisively as they seem at present to give promise of, there may be added another element to the Metchnikoff theory of the wholesome influence on the human organism of the large intake of buttermilk. Furthermore, if the results of Clock, as published in a recent number¹ of *The Journal of the American Medical Association*, are indicative of what we may expect in the general routine of cases of infantile diarrhea, we have in the Bulgarian lactic acid bacillus a most potent factor in the conquest of intestinal pathogenic flora of the summer diarrheas of children. In fact, in the face of the old time régime of treatment of these cases by purgation and starvation, Clock's methods and results seem most startling. And yet when he is able to produce a series of 117 cases, together with the recovery of 116 of these, it is but fair to conclude that there must be some rational basis for the results obtained.

In a former paper, Clock stated that "a starvation diet, accompanied by purgation, is productive of loss of weight and strength, and serves to prolong the course of the disease." The results obtained in his series seem to emphasize this fact most strongly.

Of the total series of 117, the one death occurred in a severe case of enterocolitis which

had persisted for two weeks before receiving any treatment, hence the condition was highly toxic and almost beyond hope at the institution of treatment.

All of the cases were from the out-patient department of the Babies' Hospital of the City of New York, where hygienic surroundings and the intelligence of the home treatment were of the lowest type, and the end-results were traced up for a number of months, so that the results presented must be fairly accurate.

The age varied from 6 weeks to 2½ years, and the types of disease ranged from mild grades of enterocolitis through the severe and toxic forms of gastro-enteritis. The average period of time that the condition had lasted, prior to instituting treatment, was one week, and the number of stools per day before treatment varied from six to fifteen. The general character of the stools was loose or watery, color green, odor offensive and varying amounts of curds, mucus or blood were contained therein. There had been vomiting in 70 of the cases and in many of these it had been persistent, all food being rejected soon after it was taken. The temperature ranged from 100.2 F. to 104.2 F. Sixteen of the series were breast-fed and the remainder bottle-fed from diets consisting of various milk formulae or proprietary foods, or in some cases a mixed dietary of whole milk, cereals, soups, etc.

The method of treatment consisted of the administration of a pure culture of the true *Bacillus lactis bulgaricus*—the type A organism, which was isolated from Bulgarian soured milk and the culture imported through the Johns Hopkins Hospital and elaborated in tablet form in the Hynson Westcott Laboratory at Baltimore. One or two tablets were usually given every two or three hours; but, in severe cases, two or even three tablets were given every two or three hours before and after each feeding—making a total, in some cases, of forty-two tablets in twenty-four hours.

Out of the total series 74 babies were continued on their respective milk diets, while the remaining 43 patients were placed on a starvation diet of barley water from twenty-four to forty-eight hours, after which small amounts of boiled, skimmed or whole milk were usually added to the diet. Twenty-nine of the 43 patients on a starvation diet were given a preliminary dose of castor oil, while no cathartic was given to any of the patients on a milk diet.

The three cardinal signs of improvement noted were: First, gain in weight; second, rapid change in character of the stools to normal color and consistency, regardless of their number; third,

1. July 19, 1913.

improved general condition of the patients as evidenced by improved appetite, subsidence of fever, abatement of vomiting and better appearance.

One of the most striking results of the treatment was the early gain in weight, whether the stools decreased in frequency or not, although they usually did so early, and likewise early became normal in color. In fact, in one case where twenty stools were passed in two days, the baby made a steady gain in weight. Mucus and blood invariably disappeared from the stools on the second day. The vomiting ceased, the appetite improved and the fever practically subsided on the second day, the improvement in the appetite and the drop in the temperature always preceding the yellow color of the stools by about twenty-four hours.

The average gain in weight of all of the patients, kept on some form of milk diet from the very first day of treatment, was 1.2 ounces for the first twenty-four hours and 6.2 ounces at the end of the first week, as contrasted with a gain of only 0.2 of an ounce at the end of the first day and 1.7 ounce at the end of the first week in those patients placed on a starvation diet of barley water for twenty-four or forty-eight hours.

These results prove pretty conclusively that the tremendous loss of strength following a starvation diet robs the system of the opportunity of deriving the maximum benefit from the addition of milk to the diet at the end of forty-eight hours, even though the intestinal condition at that time may be under control. Furthermore, during starvation there is no adequate supply of available carbohydrate, so essential to the rapid proliferation of the *Bacillus lactis bulgaricus*, and for this reason the intestinal condition responds less rapidly to the treatment. Needless to say, Cloek does not believe the milk to be the causative factor of the disease, but advocates the bacteriologic factor as the essential one in the disease.

The following impressive conclusions stand out preeminently in this form of treatment:

1. The gain in weight, in spite of the number of stools.
2. The rapid change in color of the stools to yellow.
3. The rapid subsidence of fever.
4. Absence of mucus and blood from the stools at the end of forty-eight hours.
5. The fact that the hygienic surroundings of the patients and the degree of intelligence of the mothers had no influence on the results.

6. A starvation diet, accompanied by purgation, is productive of loss of weight and strength, and serves to prolong the course of the disease; and further, such a procedure can no longer be advanced as a rational method of treating infantile diarrhea.

7. The digestive powers in infantile intestinal conditions, even when associated with fever, are not so impaired as to prevent the digestion and assimilation of a milk diet. This fact is corroborated in typhoid fever, where the high calorie diet, in contrast to the starvation diet, has reduced the mortality to a remarkable degree. Moreover, the cases herein recorded prove the value and rationale of continuing a milk diet in infantile intestinal conditions, as illustrated and emphasized in the diagram of the weights.

8. In severe cases, best results are obtained by administering a large number of the tablets during the first two or three days of the treatment. As many as forty-two bulgaria tablets in twenty-four hours have been given to very young babies without untoward effects.

9. The implantation method of treatment has progressed beyond the experimental stage and the results of its use can no longer be questioned or disputed. This treatment has been proved of practical clinical and scientific value; and its simplicity should appeal to every practitioner.

10. In order to secure the best results, in using the implantation treatment, a pure culture of the true *B. lactis bulgaricus* must be employed; otherwise, disappointment will follow. Bacteriologists recognize the fact that the same organism, isolated from different sources, will vary in its virulence and in certain other characteristics; and the *B. lactis bulgaricus* is no exception to this rule. While similar organisms have been isolated from the soured milks of several eastern countries, namely, Russia, Egypt, Armenia, Syria, etc., yet the bacillus isolated from Bulgarian soured milk has been proved to possess the greatest antagonism to putrefactive bacteria. Moreover, in using a culture of this organism for implantation treatment, it is essential that the culture show only viable organisms and that these be present in sufficiently large numbers. Without doubt, it has been the lack of a pure, active culture of this bacillus in viable form that has been the cause of the indifferent results obtained in previous years with lactic acid bacterial therapy.

THE INDIANA UNIVERSITY SCHOOL OF MEDICINE

The Indiana University School of Medicine stands in the highest class of medical schools in the United States. The American Medical Association, which is devoted to research work and the interests of medicine in general, classifies all the medical schools into three classes, first the class of A plus which means that over twenty-seven of the highest grade requirements have to be met. The classification was only made after the most thorough inspection by the council of the association, of the various schools in the United States. Many schools over the country with a much larger faculty and many more students failed to make the highest class and the honor to Indiana University of having its medical school classified as A plus comes from the thoroughness of the course, the direct application of the most scientific methods, and the research work of its faculty.

The medical school of Indiana University stands in the first class, the other classes range from good to hopeless and do not interest any student of Indiana or any prospective student. The main thing is that the requirements of the medical school more than come up to the standard and any graduate of this school may have no fear that he will not have an adequate knowledge of medicine after completing the course. A preparatory course of two years is required in the College of Liberal Arts or its equivalent before a student may enter the medical school and four years are required to finish the work there. The preparatory work insures the student of an adequate knowledge of a number of other subjects which bear on the medical profession.

For many years the courses in chemistry, bacteriology, histology, neurology, embryology and physiology have been courses in departments of the College of Liberal Arts of Indiana University. In 1903 the department of anatomy was added to the College of Liberal Arts. Certain courses given in this department together with the courses mentioned above constitute the greater part of the first two years of the four years' course in medicine. These courses were accordingly grouped together and organized as the Indiana University School of Medicine. A little later the department of pathology was added to the College of Liberal Arts and the school of medicine and the courses of this department completed the work of the first two years of the four-year medical course.

The organization of these courses as a school of medicine did not change their relation to the

College of Liberal Arts. As arts courses their scientific aspects continue to be emphasized. As medical courses their practical bearing is duly considered.

The maintenance of this twofold point of view in giving these courses is necessitated by the fact that, though as a group they constitute the first two years of the school of medicine, individually and collectively they remain elective, under certain conditions, for all arts students of the university.

Arts students of Indiana University, candidates for the B.S. degree, by electing the first two years of medicine as the last two years of their collegiate course, and by registering and enrolling at the same time in both the arts and medical schools, may complete the work for their B.S. degree with two years credit in medicine.

For next year many new departures are planned. The Long Hospital at Indianapolis will be completed and added as a distinct feature of the Indiana University School of Medicine.

Dr. and Mrs. Long transferred property valued at \$200,000 to Indiana University in 1910, to be devoted to the building of a hospital for the care of the poor of the state, which will be under the control of the Indiana University School of Medicine. Later Dr. and Mrs. Long gave \$25,000 for equipping the hospital. The institution will be a credit to its founders, a boon to the poor of the state, and an asset of great value to the medical school. The state legislature, realizing the great work done by the Indiana University School of Medicine recently increased the appropriation from \$25,000 to \$65,000 for maintenance.—*Bloomington World*, July 11, 1913.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

WE are heartily in accord with the suggestion of Dr. Hurty to the Board of Health, that a record and study of the centenarians in Indiana would be both interesting and instructive. We therefore urge the readers of *THE JOURNAL* to send to the Board of Health the names of any Indiana centenarians of whom they may know.

WE are informed by Secretary Combs that several of the councilors have so far failed to send in their 1912 reports for publication in

THE JOURNAL previous to the West Baden session. We desire to urge all councilors who have not yet forwarded reports to Dr. Combs to do so at once, inasmuch as all copy for the special September or West Baden number of THE JOURNAL should be in this office by August 25, and certainly not later than the 30th.

DR. HURTY has arranged with Dr. Lillian South of the Kentucky State Board of Health to bring her hookworm exhibit to the West Baden session. In this connection, Dr. Hurty is arranging to collect specimens of feces from the southern counties of the state for examination, and he requests the aid and cooperation of all Indiana physicians. Any physician interested in this hookworm investigation can obtain further information from the Bacteriological Laboratory of the Indiana State Board of Health.

As a special inducement to county secretaries to attend the West Baden session, a secretaries' breakfast is being planned for Thursday, September 25, at 8 a. m., at which time there will be a roundtable conference, and a discussion of plans for next year's work. We have long thought that the Association should recognize in some way the valuable service rendered by county secretaries, for which they receive no salary, and we are glad that this year there is to be a banquet in their honor.

ALL essayists on the West Baden program have been asked by the program committee, and also by the editor of THE JOURNAL, to forward comprehensive abstracts of their papers for publication in connection with the program which will appear in the September number.

We especially desire to remind the essayists that the abstracts should be in the hands of the editor on or before August 25, and under no circumstances later than the 30th. Abstracts should contain not less than fifty and not more than three hundred words.

ARRANGEMENTS have been made with the Vandalia and Monon Railroad to run a special train out of Indianapolis on Wednesday, September 24, leaving at 2 p. m., and arriving at West Baden about 6 p. m. The train will stop at Martinsville, Gosport, Bloomington, Bedford, Mitchell and Orleans. A good attendance is promised from Indianapolis, and this crowd, together with those members from northwest, north-central and eastern Indiana who are going to this year's session, will doubtless make up a very comfortable and enjoyable trainload.

WE are informed that a new set of school hygiene rules are being prepared in accordance with, and in obedience to the recent legislation. We believe that about the best place to teach hygiene is to the young, before ill-health-causing habits are formed. It is a difficult matter to get a sick man to cease the habits which made him sick, and as for inducing a well person to abstain from sickness-causing habits—that is out of the possibilities. The fresh-air habit, the plain-food habit, the thorough-mastication habit, the regular and plain life habit, if inculcated in our schools will surely do a little toward increasing health and efficiency.

SECRETARIES of county societies will please recollect that the By-Laws of the State Association require that the credentials of delegates be in the hands of the Committee on Credentials before the time of the meeting of the Association. This requirement is made in order to expedite business and minimize confusion, and will be strictly enforced this year. The slipshod practice of making out credentials after arrival at the place of meeting without proper action of the society from which they purport to come leads to unpleasantness in most cases. As the delegates have been selected by this time, please see to it that their names are sent to Dr. A. Pierson, Spencer, Ind., who is Chairman of the Committee on Credentials.

THERE should be a good attendance at the annual session of the Indiana State Medical Association, to be held at West Baden, September 25 and 26. The preliminary program, published in the July number of THE JOURNAL, indicates that a diversity of live subjects will be discussed by many prominent members of the Association. An effort will be made to keep the scientific work uppermost in the minds of all those who attend, and it is to be hoped that those who discuss papers will go to West Baden properly prepared. Inasmuch as few men have the gift of speaking extemporaneously in a concise and intelligent manner, we desire to urge discussants to prepare and read their discussions, or, if speaking extemporaneously, to do so from notes. In this way the discussions will be more comprehensive, and iteration and reiteration are likely to be avoided.

THE September number of THE JOURNAL will be devoted almost exclusively to the West Baden session. It will contain the completed program for all meetings, the formal reports of all committees, and such announcements as are necessary to acquaint the members of the Association as to

what is in store for them. Reprints of all committee reports will be placed in the hands of the members of the House of Delegates, so that the reports can be read and duly considered before they come up for formal action before the House of Delegates. In this way it is expected that all committee reports can be acted on without delay and in an intelligent manner.

To insure a better and more satisfactory scientific program, *THE JOURNAL* will publish in the September number in connection with the program, an abstract of each and every paper. To every one who is appointed to open the discussion of papers, we suggest the propriety as well as advisability of securing a copy of the completed paper he is appointed to discuss, so that a comprehensive discussion may be prepared in advance of the West Baden session. We especially urge those who have formal discussions to read them from manuscript rather than attempt to deliver the discussion extemporaneously.

THE editing and publishing of papers presented at our annual sessions requires an immense amount of work on the part of editors and assistants. To lighten the burden considerably, and to more fairly represent those who are to take part in the West Baden session, we wish to offer the following suggestions:

Essayists should see that their papers are typewritten, properly headed with title, full name and address of the essayist, and the manuscript carefully edited. The manuscript should be paragraphed, punctuated and capitalized just as the subject matter should appear in type.

A frequent error on the part of essayists is to fail to edit the paper after it has been returned from the stenographer. In consequence there are either too many or too few paragraphs; many words like the names of diseases are capitalized when they should not be; other words are misspelled, and but little or no attempt is made to punctuate. Such manuscripts have to receive anywhere from one to two hours' work on the part of the editors in getting them ready for the printers, who will not accept anything but typewritten manuscript, or anything that has not been edited previously. Therefore, we especially urge all those who take part in the West Baden session to help us to make all papers and discussions representative of the best and most approved work.

FRIEDMANN, the erstwhile benefactor of the human race, has almost dropped out of sight, and both he and his "cure" for tuberculosis, have fallen into disrepute. The American medical

profession never did take kindly to Friedmann or to the claims put forward, and the American secular press, to which Friedmann owed all of his publicity, and which at first vehemently sang his praises, is now condemning him most bitterly. As a final chapter, Friedmann has come in for severe criticism and condemnation on the part of his confreres and the secular press of Berlin.

The pathetic part of the whole episode is the blasted hopes and the positive physical injury done to hundreds and perhaps thousands of tuberculous sufferers who, at the expense of health and money which could be ill-afforded, traveled to New York from all over the United States, in the vain hope that Friedmann with his magic "cure" would restore them to health and happiness.

It is unfortunate that the secular press cannot be prevented from advertising and praising means and methods that are untried and of unproved merit. But for the public press the charlatan and the medical faker could not exist, and from the manner in which Friedmann conducted his campaign of publicity, it would seem that he aimed to profit in a similar way to that by which medical frauds are made to bring wealth to their promoters.

DR. J. F. SPAUNHURST, an osteopath of Indianapolis, and Dr. S. G. Smelser, a regular of Richmond, have been reappointed as members of the State Board of Medical Registration and Examination. Their new terms of four years will date from last April when their commissions issued by former Governor Marshall expired.

This action on the part of Governor Ralston indicates that it is not a question of efficiency but politics which influences him in the appointment of members on the Board of Medical Registration and Examination. The governor says that it was the spirited opposition which led him to reappoint Drs. Smelser and Spaunhurst. He might have taken into consideration the fact that spirited opposition never arises without some cause, and the opposition was not of a political nature, but based on a desire for efficiency on the Board of Medical Registration and Examination. Furthermore, the evidence presented was sufficient to satisfy anyone who is not blinded by partisan motives. However, the appointments have been made, and we are treated to the spectacle of having Indiana represented on one of its educational boards by men whose speech and action are opposed to better standards. From private sources we are reliably informed that Ex-Governor Marshall was never proud of the fact that he had appointed Smelser and Spaun-

hurst as members of the Board of Medical Registration and Examination. We wonder if Governor Ralston will not yet see the day when he will also regret that he has been blinded by politics and refused to recognize the demand for a higher standard of efficiency in his appointees.

It is very evident that the subject of fee-splitting is very distasteful to a considerable number of medical men. They are not willing to discuss the subject, and if perchance they are drawn into the discussion, they do not resort to logic but invective, and are quite willing to ascribe all sorts of reasons for the campaign for the suppression of fee-dividing as instigated by those who believe that the subject is worthy of consideration. The strangest thing about the whole proposition is that those who favor fee-dividing are not willing to come out boldly and defend it as being right, and as being worthy of the knowledge of the public. If a practice is right we have nothing to fear from publicity; if it is wrong we ought to stamp it out. We are beginning to believe, however, that it will require something more than the pleadings of members of the medical profession to stop a practice which is profitable to many, like some other dishonest practices, though we are firmly of the opinion that public sentiment not only will demand but secure legal restriction which will settle the question. All signs point in this direction, for already at least five or six states have considered laws concerning the fee-splitting proposition, and while as yet no bill has been enacted into a law, it is very evident that the time is near when laws will be enacted, and perhaps of a most stringent nature.

It is regretted that the medical profession is not able to correct abuses which should be corrected without the intervention of the law. Yet if we must have legal restrictions in order to force us to be fair and honest, then by all means let us have the legal restrictions, and the sooner the better.

THE Supreme Court of Indiana, as also the Supreme Court of the United States, has defined what shall constitute the practice of medicine. The State Board of Medical Registration and Examination has recently written each county secretary concerning the matter as follows:

The Supreme Court of Indiana, also the Supreme Court of the United States, in defining what shall constitute the practice of medicine, have each held that the medical practice is not restricted to the administration of drugs or the use of surgical instruments. Any person claim-

ing to possess knowledge that entitles him or her to counsel or advise concerning sickness or injury, and opens an office for such purpose, or appoints a place to meet patients, is practicing medicine within the meaning of the Indiana law.

The Board of Medical Registration and Examination is entirely maintained by fees. The revenue derived therefrom is inadequate for the proper execution of the act in the ninety-two counties of the state; therefore, on account of the General Assembly failing to vitalize the act by making the proper appropriation to enforce it, the county medical societies should take up the question of the enforcement of the law in their respective counties. The board desires to suggest that every county society should appoint a committee of two or three young and active members to look after persons who are not licensed and see to it that the state board is furnished with the evidence of medical law violations.

The secretary of the state board will file the necessary affidavit when put in possession of evidence that will warrant arrest and prosecution. Affidavits should not be filed by local parties on account of the prejudice liable to be stirred up in the community against the party so doing. Prosecutions should not be undertaken until a first-class trial lawyer is employed by the society to advise and assist the prosecutor, who is usually an inexperienced lawyer and often not in sympathy with the prosecution. An unsuccessful prosecution is to be deprecated as it only advertises the party prosecuted and tends to prejudice and poison the minds of an unsuspecting public against the profession and the medical law. The attorney employed by the society should be directed to advise with the secretary of the State Board of Medical Registration and Examination for data and information as to the matter of legal citations and methods of procedure that the wisdom of experience has taught the board to be most successful in conducting prosecutions.

When any person locates in your county (by location is meant place of actual residence) for the purpose of practicing medicine, do not wait to ascertain if he is registered with the state board, but call up your county clerk and ask if said party is recorded in his office, and if not, he is violating the law in your county, even though he should be holding a license from the state board. If such party holds a state certificate it is his duty to immediately register same in the county to which he moves and in which he maintains his residence. It is the intention

of the law that certificates issued by the state board be registered in the county where the holder is a bona fide resident and *no other*. Until an actual change of residence is made the itinerant doctor is only required to register in his home county the same as others.

If a prosecution is undertaken it would of course be necessary to furnish the county attorney with the full names and postoffice addresses of three or more patients that have been treated by party charged, together with such facts as may be known concerning the treatment.

Prosecutions are more successful when undertaken early than after business has been established. If any one enters your county to practice the healing art who does not possess a license, do not wait until said party has established a business, but notify him at once that prosecution will be commenced unless license is obtained.

The State Board of Medical Registration and Examination is opposed to all violations of the medical practice act, regardless of whether the offender be a regular, homeopath, eclectic, physio-medical, osteopath, chiropractor or other healer. No attention can be given complaints of violation of the medical practice act unless secretary or president of the county society endorses the complaint by signing same. This is made necessary on account of numerous complaints coming to us from unreliable sources.

For legal opinions consult your county attorney, or Thomas M. Honan, attorney-general for the state of Indiana.

DEATHS

ROBERT SCOTT, M.D., died at his home in South Bend, July 13; aged 49.

GEORGE P. HODSON, M.D., of Evansville died on July 30, after an illness of several weeks.

WILLIAM BURKETT, M.D., once a prosperous physician of South Bend, died at the county infirmary July 15. Dr. Burkett was born in 1842.

ROBERT HARRIS, M.D., one of the oldest physicians in Northern Indiana, died at his home in South Bend, July 22. Dr. Harris was born in Ohio, March 14, 1823.

W. R. MATTOX, M.D., of Terre Haute, died at his home August 2, of chronic nephritis, aged 58 years. Dr. Mattox was for fifteen years a member of the staff of the Union Hospital, and had

been a faithful worker in the Vigo County Medical Society for the past twenty years.

HENRY H. CALDWELL, M.D., 80 years of age, one of Terre Haute's oldest physicians, was found dead in his apartments, July 5. It is believed that death was due to infirmities attendant to old age and the intense heat. Dr. Caldwell was the only practicing physician in Terre Haute who practiced medicine during the Civil War.

JAMES EDWARD MORRIS, M.D., aged 84, of Liberty, died at Bay View, Mich., where he had gone for his health, July 19. Dr. Morris was a graduate of Bellevue Hospital Medical College, New York, and had practiced medicine fifty years in Liberty. He was a member of the Union County Medical Society, Indiana State, and American Medical Association. Dr. Morris was born in 1829.

A. R. TUCKER, M.D., of Noblesville, died at his home July 12, as a result of a wound and diseases contracted during the Civil War. His illness was of long duration, though it did not take a serious form until last spring. Dr. Tucker was born in Indianapolis, March 24, 1844. He graduated from Rush Medical College in 1870, beginning the practice of medicine in Cicero, but in 1892 he was elected auditor of the county, and at that time moved to Noblesville, where he practiced until death.

DR. R. E. BROKAW of Portland died at his home, July 26, after an illness of only one week, from acute general streptococcic infection originating in the tonsils, complicated with facial erysipelas and pneumonia. An operation for transfusion of blood was performed, but without avail. Dr. Brokaw came to Portland with his father in 1884, graduated from the public schools there in 1888, and from the Western Reserve Medical School, Cleveland, Ohio, in 1895. Dr. Brokaw served two terms as coroner of Jay County.

The following tribute to his memory is paid by the Jay County Medical Society:

He who seeks to solve, only deepens, the mystery of death. Poet and philosopher, scientist and theologian, alike, stand appalled at the ravages of the grim reaper. Its inscrutable powers are made manifest in the lives of those whose work is unfinished, as well as in those whose mission on earth is accomplished. Dr. R. E. Brokaw still stood facing the purpling east, radiant with hope and ambition, when the final summons came. He was still climbing the heights of professional activity and accomplishments in the undertakings and oftentimes laborious

duties of his beloved profession. He saw the summit of usefulness but from afar, and each returning day only added to the intensity of his purposes. He was indeed a potent factor in the life of the Jay County Medical Society. His devotion to medical progress was sublime and inspiring. Every new thing that promised results was given a careful weighing in the balance of clinical experience with the hope that it might add to his equipment for the alleviation of human suffering and sorrow. He was willing that all might doubt his wisdom for the moment, if from his labors and painstaking observations there could come some good to the children of men.

Only the most urgent needs of his patients prevented him from attending the meetings of the society. He was a candid debater in the discussions before our body; he was fearless in expressing the opinions gleaned from his studies and investigations of diseases.

It was the enthusiasm of his type that, in their broader opportunities, made the names of Pasteur, Metchnikoff, Senn and a host of other workers memorable in medical annals. It was sometimes said by his friends that he represented the extreme idea in preventive medicine, but the extremists are the men and women who have won the world for progress and civilization. In the mighty battle that humanity is constantly waging for health and happiness, for peace and purity and the sacredness of the home, they are with the colors, they stand on the firing line of achievements, they are facing the dangers; the types like our beloved colleague are bearing the burdens. It is often said that when one is dead he is soon forgotten, except by those nearest and dearest to him. It is in a great measure true, and we are led to doubt sometimes the wisdom of the creator in the thought that why should they have lived at all. But the thought that comes to our minds as an answer to this seeming indifference of the world is this: every life has been a factor in the building of the great temple dedicated to human character and usefulness. Some are seeking to tear down and destroy, while others are striving to build up and perpetuate. Dr. Brokaw's well-rounded life has added to the symmetry and the stability of this structure. He has builded into its architecture by his devotion to duty and upright life an enduring unit of exquisite design. In the economy of time it will last forever, until in one glad day the temple shall have been completed.

In the ladder of lives we are given to climb,
Each life counts only a second of time,
And the best thing to do in the brief little space,

Is to make the world glad that we ran in the race.

M. T. JAY,
J. E. NIXON,
J. B. GARBER,
Committee.

NEWS, NOTES AND COMMENTS

INDIANAPOLIS

DR. CHARLES SOWDERS is recovering from a recent severe illness.

DR. R. S. CHAPPEL is spending two months in attendance at German clinics.

DR. JANE KETCHAM is spending a month's vacation on the Maine coast.

DR. E. DEWOLFE WALES is spending his vacation on the Massachusetts coast.

DR. S. A. JOHNSTON is again in his office, after convalescing from a recent illness.

DR. T. C. KENNEDY, who has been critically ill from nervous prostration, is much improved, and is now on the road to recovery.

THE State Board of Optometry has recently decided that, in accordance with an opinion from Attorney-General Honan, osteopaths in Indiana cannot practice optometry unless they obtain a license from the state board.

THE Younger Physicians' Club gave its annual outing recently, celebrating with a chicken dinner at Pages. There were about one hundred in attendance, including many of the members' wives and some of the older physicians.

DR. J. DON MILLER, Indianapolis, has been elected president; Dr. R. A. Mitchell, Marshall, Ill., vice-president, and Dr. Alfred Henry, Indianapolis, secretary of the Alumni Association of the Indiana University School of Medicine.

GROUND is being broken for a new addition to the Methodist Hospital at Sixteenth Street and Capitol Avenue, the foundation to be laid this summer and the building erected next spring. This new wing is in keeping with the original architectural designs and completes the Capitol Avenue frontage.

INDIANAPOLIS boasts of several clinics conducted by the Children's Aid Association, where babies may receive medical attention free of charge. The hot weather has necessitated the establishing of additional clinics so that the increasing number of stricken babies may receive prompt attention.

THE headquarters of the Indiana Association and the Marion County Association for the Study and Prevention of Tuberculosis, are now in Rooms 203 and 207 of the Public Savings Life Building, on East Market Street. The rooms have been given over to the use of the societies by the Public Savings Life Insurance Company.

THE state health commissioner has prepared a health exhibit which will be placed in the state house corridors on Sunday. An employee of the health board will be on duty to explain the exhibit and distribute circulars to the visitors. The exhibit is divided into sections treating on tuberculosis, oral hygiene, child welfare, fly prevention and clean milk.

A MARION COUNTY detention hospital for the insane with a probable location near the Indianapolis City Hospital, or the Robert W. Long Hospital, will be erected soon, if plans now actively on foot are carried out. A new law enacted by the last legislature would enable the county commissioners to establish a detention hospital, provided the county council makes an appropriation.

THE policy of THE JOURNAL in entering into a vigorous campaign against fee-splitting editorially, and opening its columns to a free expression on the part of the profession is slowly but surely clarifying the atmosphere which has so densely enveloped this subject for so long. If this agitation had been started five years ago many young men would have been saved from the pitfalls into which they have strayed. It is hardly to be expected that old offenders will reform without legal restrictions, but the weight of a sensitized professional conscience is the greatest factor in shaping the conduct of young men. Certainly the profession of this state is to be congratulated in being represented by a journal of clear moral sight and courage of conviction.—*Indianapolis Correspondence.*

THE Bacteriological Laboratory of the Indiana State Board of Health did 1,168 examinations during the month of July. There were 375 sputum specimens, of which 110, or 29 per cent., were positive; 191 specimens of blood examined for typhoid, 32 were positive, and of these, 3 showed a positive paratyphoid agglutination. Out of 44 specimens of blood examined for malaria plasmodia, 2 were found positive. Forty-two brains of animals suspected of having rabies were examined and 16 were positive; 19 persons took the antirabic treatment; 933 outfits for

sending in specimens were sent to doctors over the state. About 1,000 doses of antityphoid vaccine were sent to Evansville to assist in control of an epidemic apparently due to infection with typhoid bacilli of the milk of one of the large dairy companies. Many of the milk customers of this company were vaccinated against typhoid, and the authorities of Evansville feel that it played a large part in controlling the epidemic.

GENERAL

DR. IRVIN E. BOOHER has recently located in Connersville.

DR. L. N. WELLS of DeMotte suffered a slight stroke of paralysis July 25.

THE surgeons of the Monon Railroad met July 1 at French Lick Springs.

THE cornerstone of the new St. Francis Hospital, Beech Grove, was laid July 16.

A CHARTER was granted July 21 to the Frances Willard Hospital, Hammond, with a capital stock of \$60,000.

DR. GEORGE T. MCCOY of Columbus has recently been appointed a member of the local pension examining board.

DR. J. C. BURKLE, formerly of New Ross, has recently moved to 212 Wiggins Street, West LaFayette, for the practice of medicine.

DR. M. RAVDIN of Evansville left July 19 for Europe; Dr. Ravdin will attend the International Medical Congress during his absence.

DR. AND MRS. DAVID W. DENNIS of West Richmond sailed July 12 for Panama, for an extended vacation trip.

DR. OLIVER P. GRAHAM, Jeffersonville, who has been seriously ill with pneumonia, has gone to Mackinac Island to recuperate.

A NEW board of managers has been elected for the Twin Hill Tuberculosis Camp, Terre Haute, to take charge of the camp during the present season.

THE first hospital in Sullivan County has recently been opened. The hospital is a private one, and is known as the R. H. Crowder Memorial Hospital.

DR. CHARLES R. GILLESPIE of Seymour was seriously injured July 6 by being thrown from a buggy, over the railing of a bridge, to the ground 20 feet below.

ANY reader of THE JOURNAL who would be interested in a proposition to take charge of a sanitarium, is directed to read the commercial announcements on advertising page 21.

THE annual meeting of the Second District Medical Society will be held in Washington, September 4. The Daviess County Society is planning elaborate entertainment for the visitors.

DR. E. E. GRAY of Bloomfield, fourteen years ago sentenced to life imprisonment at Michigan City for the murder of a woman, has recently been paroled by Governor Ralston and will resume the practice of medicine in Bloomfield.

ELKHART'S new general hospital, completed at a cost of \$80,000, has recently been opened to patients. The new building has thirty-seven rooms, including three wards, and has accommodations for forty-eight patients.

DR. SPAUNHURST must have a first-class press agent, judging from the amount of free advertising he has wormed out of the newspapers because of his appointment as a member of the state medical board.—Greensburg *Review*, Aug. 1, 1913.

THE Union Hospital, Terre Haute, is the recipient of a \$50,000 bequest in the will of the late James McGregor of that city. It is the intention to erect a new nurses' home to accommodate the twenty-five student nurses now in attendance at the training school.

THE new addition to St. Elizabeth's Hospital, LaFayette, has recently been completed. The new structure, as viewed from the street, is of the same appearance as the other wings and main building, but within it is far superior both as to finish and equipment.

AT the recent meeting of the Northern Tri-State Medical Association, held in South Bend, July 8, the following officers were elected: president, Dr. G. W. McCaskey, Fort Wayne; vice-

president, Dr. T. F. Wood, Angola; secretary, Dr. George W. Spohn, Elkhart; treasurer, Dr. J. W. Weitz, Montpelier.

THE fifteenth annual meeting of the American Proctologic Society was held at Minneapolis, Minn., June 16 and 17. The following officers were elected: president, Dr. Joseph M. Mathews, Louisville, Ky.; vice-president, Dr. Jas. A. Mac-Millan, Detroit, Mich.; secretary-treasurer, Dr. Alfred J. Zobel, San Francisco, Cal.

The Journal of the Indiana State Medical Association is rapidly becoming one of the real medical journals of the West. Editor Bulson and his assistants are doing a good work and doing it exceedingly well. The editorial page, in particular, is filled with timely articles of much merit, and the articles selected for the body of THE JOURNAL are chosen with a wise discrimination. The members of the State Association can surely feel proud of their JOURNAL.—*Bulletin of the Lake County Medical Society*, July 1, 1913.

SINCE July 1 the following articles have been accepted for inclusion with New and Nonofficial Remedies:

Acne Vaccine (Lederle Antitoxin Laboratories).

Pertussis Vaccine (Lederle Antitoxin Laboratories).

Meningococcus Vaccine (Lederle Antitoxin Laboratories).

Coli Vaccine, 20 c.c. vials (Lederle Antitoxin Laboratories).

Gonococcus Vaccine, 20 c.c. vials (Lederle Antitoxin Laboratories).

Pneumococcus Vaccine, 20 c.c. vials (Lederle Antitoxin Laboratories).

Staphylococcus Vaccine, 20 c.c. vials (Lederle Antitoxin Laboratories).

Staphylococcus Albus Vaccine, 20 c.c. vials (Lederle Antitoxin Laboratories).

Staphylococcus Aureus Vaccine, 20 c.c. vials (Lederle Antitoxin Laboratories).

Streptococcus Vaccine, 20 c.c. vials (Lederle Antitoxin Laboratories).

Typhoid Vaccine, 20 c.c. vials (Lederle Antitoxin Laboratories).

Tetanus Antitoxin, H. M. Alexander & Co.

Digipuratum Ampules, Knoll & Co.

Digipuratum Solution for Oral Use, Knoll & Co.

CORRESPONDENCE

FEE-SPLITTING

INDIANAPOLIS, IND.

To the Editor:—Concerning the matter of fee-splitting will say that I am opposed to paying any physician for his patronage.

Sincerely yours,

THOMAS B. NOBLE.

SHOALS, IND.

To the Editor:—I am very decidedly opposed to fee-division. I regard such as pernicious and dangerous. We should honor our high calling by doing and being right in all things. Manly men in the profession is the demand of the hour.

Sincerely,

E. EDMUND LONG.

WEST LAFAYETTE, IND.

To the Editor:—I regard fee-splitting as ethically and morally wrong, and am now and always have been bitterly opposed to it. If I cannot collect my deserving fee from my patient I certainly will not ask the surgeon to collect it for me.

Respectfully,

J. C. BURKLE.

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

The following is a list of those who have paid Association dues between July 1 and Aug. 1, 1913. Errors in name or address should be reported to Secretary Combs, giving number of the membership card in order to facilitate prompt detection of the error on the membership records. This list as published is included on the mailing list of *THE JOURNAL*, and any member whose name appears on this list and who does not receive his *JOURNAL* is requested to write for a duplicate copy.

| NAME AND ADDRESS | COUNTY SOCIETY |
|--|----------------|
| Amzi Weaver, Elizabeth..... | Harrison |
| Geo. W. Cramm, Hayden..... | Jennings |
| D. N. Hayden, Vernon..... | Jennings |
| Frank Morrison, Willoughby Bldg., Indianapolis | Marion |
| W. F. Baker, Eli, Lilly & Co., Indianapolis | Marion |
| L. Ten Broeck, Laporte..... | Laporte |
| J. M. Jackson, Anrora..... | Dearborn |

FORT WAYNE MEDICAL SOCIETY

Meeting of May 27

Society met in assembly room with eighteen members present. Minutes of preceding meeting read and approved.

Clinical night, in charge of Drs. W. C. Calvin, E. E. Morgan and J. C. Wallace.

Dr. Morgan presented a patient, male, 62 years of age, complaining of pain in chest, which extended down the left arm; more intense upon motion of left arm; shortness of breath; some cough. X-ray of chest shows shadow to the left of vertebral column, indicating growth about the size of an orange. Diagnosis of aortic aneurism made. Blood examination negative; urine analysis negative; blood-pressure showed a difference of 10 m.m. between left and right arm, left being less.

Discussion, Dr. Bruggeman: Is there any relation between this growth and pain in left arm? I do not think that any man could take this x-ray plate and make a diagnosis of aneurism. If it is an aneurism it could not produce the symptoms as described. If it is a mediastinal tumor it is decreasing in size. The most valuable picture of x-ray of the chest is the profile.

Dr. Porter, Jr.: I think that the presence of the general signs of arteriosclerosis in this case can be wholly responsible for most of the symptoms. The variance in blood pressure is interesting. Pain in chest and left arm is not an uncommon thing in these cases.

Dr. Porter: The tumor, if it is a tumor, is too low down to produce pain in the left arm by pressure. I would not want to arrive at the diagnosis of tumor producing pain in this arm. I would want an x-ray picture of the neck to exclude cervical rib. These symptoms are not at all uncommon in a case of this type.

Dr. Morgan: I do not understand why if that is not a growth that when he puts this nerve on a stretch by raising his arm it produces pain.

Dr. Wallace: Case 1. Presented the second of a pair of twins delivered in breach. Lump in sternomastoid muscle; hematoma of the sternomastoid.

Discussion, Dr. Porter: I have never seen anything like this before, but I have no doubt that they occur. This injury is produced by flexion of the head.

Dr. Duemling: I had such a case referred to me some time ago for the removal of a tumor. On section I found no condition except a myositis.

Dr. Wallace also reported two cases of injury of the clavicle, intra-uterine.

Case 3. Report of a case history of subconjunctival hemorrhage without cause, except that a 25 per cent. solution of argyrol was used as a preventive of ophthalmia. Did the argyrol produce the hemorrhage?

Case 4. One case of cervical edema producing protrusion of the cervix. The uterus was pregnant. Used a tampon to keep uterus in place.

Dr. Porter, discussion: Sounds like an injury to the brachial plexus in second case of Dr. Wallace, and not a fracture of the clavicle. I am opposed to the routine use of argyrol or anything else in these cases. These babies have sore eyes following this practice. I am inclined to believe that argyrol did not produce the subconjunctival hemorrhage. I think that there is a discharge following nitrate of silver, but none following argyrol. I have recently seen a gonorrheal ophthalmia following the use of nitrate of silver, or in spite of its use.

Dr. Rothschild: As a matter of prophylaxis we should get busy early in the pregnancy, and at the time that we do our pelvimetry the vagina and its glands, as well as the urethra should be investigated for gonorrheal infection and treated.

Dr. Porter, Jr.: In the case of prolapse of cervix, I have a patient, girl of 14, who had an ulceration of cervix and perineum, unattended; when three months pregnant one-half of uterus was outside the vagina while she was on her feet. Put to bed for two weeks. With growth of uterus prolapse ceased; miscarried at seven months. Been no return of prolapse since. I do not think that we are in a position to guard against pus tubes or any other gonorrheal inflammation, so I use argyrol as a routine practice.

Dr. Rawles: I formerly used nitrate of silver and argyrol, but I have discarded them.

Dr. Bruggeman: I want to protest against what has just been said against the use of silver salts. No harm has been done with them, but a great deal of harm has resulted from failure to use them.

Dr. Morgan: I have just as many sore eyes now that I use nitrate of silver as when I used nothing but boracic acid solution.

Dr. Calvin reported a case of chronic eczema which was interesting from the fact that there was a prolific family history of chronic eczema.

Dr. Duemling presented three very interesting case histories and specimens. Case 1, kidney removed for hydronephrosis. Case 2, cyst of ovary with twisted pedicle. Uterus removed with cyst preserving twist in pedicle. Case 3, spindle celled sarcoma of suprarenal gland.

Discussion. Dr. Porter: What did you do with ureter from point of amputation of kidney down to bladder? Lower end of ureter will show the pathology in this case.

Dr. Bruggeman: You can see that most of the dilatation of this kidney began in the pelvis. I was wondering what the history is in ovarian cysts with twisted pedicles when allowed to go without operation.

Dr. Duemling: They would have necrotic spots which would later become infected.

Application of Dr. Noah Zehr was presented and referred to board of censors.

Resolutions on the death of Dr. R. Parks White were read. Motion carried that copy be spread on minutes, one sent to the family and one to the press.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of June 3

Society met in assembly room with twenty-four members present. Minutes of previous meeting read and approved.

Clinical cases. Dr. Duemling: Patient, male, aged 48, weight 200 pounds. Has been suffering from pain in abdomen for two weeks. Had sudden intense pain, more severe seven days ago. Leucocytes 21,300; 82 per cent. polymorphs. Temperature 99; pulse 100. Pain referred to gall bladder. Diagnosis of empyema of gall bladder was made. On opening abdomen found a distended gall bladder with thin walls. Drained half a pint of black mucus. No stones, no fluid in belly. Three days ago became suddenly alarmingly ill in evening; prostration; profuse perspiration, and died 5:30 next morning. Post-mortem revealed gangrene of two feet of small intestine. Mesentery was an inch in thickness. Could not find the vessel which was thrombotic. Plastic lymph fastened one loop of gut to the other. This is the fifth case of thrombosis of the mesenteric arteries that I have had.

Discussion. Dr. B. Van Sweringen: The case history is identical with the case I reported to this society

some months ago. These cases give a history of pain in belly, not severe at all times, but recovery is usually complete until thrombosis occurs. In my case it seemed to be a colitis. The patient occasionally passed some blood. At operation mesentery did not bleed but was changed in color. Was not gangrenous like the bowel. There should be some sign to lead to a diagnosis of these cases. I imagine that the pathology is a small infarct producing pain but the blocking of the circulation is not complete.

Dr. J. S. Boyers, Decatur, read the paper of the evening on Rural Hygiene.

Discussion. Dr. Van Buskirk: The three classes of diseases which occur in the country are tuberculosis, typhoid and the diarrheal diseases, and in addition those carried by insects. The rural districts have been neglected. This is due to the fact that in city districts epidemics are prevented by ordinances establishing quarantine. This is impossible in certain rural districts. Most of the tuberculosis in the country is due to the illy ventilated buildings. It is true that tuberculosis is lessening in the cities and increasing in the country. Cancer and ulcer of the stomach are more prevalent in the country than in the city, perhaps due to the nature of the food stuff, such as preserved and cured food. The last legislature has passed a law which greatly improves the present school law and will aid us greatly in teaching hygiene by teaching the subject in the schools.

Dr. B. Van Sweringen: I have even wondered who is responsible for the insanitary conditions surrounding summer resorts. Every year people come home from resorts sick with either typhoid or diarrheal diseases.

Dr. Porter: The improvement in rural hygiene seems to me to be simply a filtration of knowledge to the country people. There does not seem to be anything to call young men back to the farm, and there will not be until the young man from the country can start out on an equality with his city brother financially and physically.

Dr. Bruggeman: The great reduction in army and navy service acceptances is due to the unfitness of the applicants applying for admission.

Dr. Beall: The morbidity and mortality of most of the acute infectious diseases are about the same as formerly. The fact that infectious diseases are less contagious than formerly is mostly due to the perfection of treatment. We are likely to disregard causes in handling and quarantining infectious diseases. I think we are justified in giving preventive vaccine for typhoid before these people go on their summer vacations.

Dr. Duemling: We see less puerperal sepsis from the country districts than we do from the city.

Dr. Blosser: I am convinced that education in the rural districts is as yet far away. The two largest factors in country hygiene are to get good drinking water and abolish the breeding places for flies.

Dr. Weaver: The fact that only 40 as compared to 60 per cent. of army recruits are accepted is due to a more rigid examination. I do not believe that we as doctors sufficiently assist the health boards to maintain their quarantine.

Discussion closed by Dr. J. S. Boyers.

Communication from Mrs. R. Parks White and daughter acknowledging the floral offering and resolutions passed at previous meeting, read.

Adjourned. G. VAN SWERINGEN, Secretary.

Meeting of June 10

Society met in assembly room with nineteen members present. Minutes of previous meeting read and approved.

Clinical cases. Dr. Duemling: Case 1, male, aged 45 years. Had attacks of gallstone colic for about a year. On opening abdomen found gallbladder converted into a dense membranous sac filled with stones. Cystic duct and common duct free. Did a cholecystectomy. Presented specimens.

Case 2, female, always well except that she had a uterine prolapse which was operated on. Not successfully cured. Later she presented a doughy, enlarged abdomen. Pre-operative puncture of abdomen withdrew some jelly-like fluid. At time of examination I thought of peritoneal tuberculosis and ruptured parovarian cyst. On opening belly I found it full of jelly-like material. Found a parovarian cyst which had ruptured, emptying the contents into the abdominal cavity. A portion of the ovary was dermoid. There was fully two gallons of mucin emptied into the abdomen.

Case 3: Dr. Duemling gave the case history briefly and presented specimen of a sarcoma of the suprarenal gland.

Discussion. Dr. Porter: The first case is a typical one requiring cholecystectomy. The other case I do not believe is a parovarian cyst for two reasons. (1) it has a pedicle, and (2) the character of the fluid is not the kind found in parovarian cyst. I think the character of this fluid is due to hemorrhage.

Dr. McOscar: This is a typical case for cholecystectomy. If you have a good duct below it is all right to sew up the gall bladder, but if any suspicion of trouble below, it is a good thing to drain the duct. Cysts of this kind are practically sterile and that is what saved this patient's life when the cyst ruptured.

Dr. Weaver: One of the very good reasons for taking out this gall bladder is the fact that it may become septic at any time.

Dr. Porter: If Dr. Duemling had removed these stones and left the gall bladder in the patient, he would have gotten better but not well, for the reason that this gall bladder is already infected and if allowed to remain it acts like an obliterating appendix. The septic material would be locked up and cause trouble.

Dr. Stoler read the paper of the evening on Enuresis. Dr. Stoler took up the etiology of the disease very thoroughly, and dwelt on the treatment in particular.

Discussion. Dr. Dancer: I never saw but one case treated with atropine, and I never heard from it again. The condition is psychic and any operation which will make an impression on the patient will usually relieve.

Dr. Wallace: I saw a lady of 20 who was afflicted with this trouble. I found she was an epileptic. Most children who are afflicted with enuresis will be found to have pinworms. Most cases clear up nicely with ordinary tonic treatment such as nux vomica and Fowler's solution. Some get better with thyroid extract. Education is the greatest factor in controlling these cases.

Dr. Schlosser: I have seen two cases of enuresis reported cured following increasing doses of atropine sulphate.

Dr. Weaver: Holt uses the same method with atropine solution. I think it is important to remember that these cases do not fall into the same line. The physiological function of micturition is in the lumbar cord. Therefore, some cases have been relieved by the introduction of saline solution into the canal following lumbar puncture. In other cases there is some infection of the bladder and urinary tract, such as a colon bacillus infection of which enuresis is a common part. Alkalis and atropin cure some cases.

Dr. Zehr's application was presented. Motion made by Dr. Porter that the rules be suspended and secretary cast a unanimous ballot. Seconded. After considerable discussion the motion was made to lay on table. Paper ballot resulted in Dr. Zehr's election.

The bills of Flick Floral Co. for \$6 and Gladys Miller of \$27 were allowed and orders drawn on the treasury for the same.

Announcement of the annual outing was made. Motion was made that president appoint a committee of three to arrange for outing. The president appointed Drs. G. Van Sweringen, Porter and Rawles.

Adjourned. G. VAN SWERINGEN, Secretary.

No meeting was held on June 17 on account of the meeting of the American Medical Association.

Meeting of June 24

The annual outing of the Fort Wayne Medical Society occurred at Robison park. The usual ball game was played, followed by dinner served in the pavilion. Sixty-four members and their families attended.

DELAWARE COUNTY

The regular meeting of the Delaware County Medical Society was held in the auditorium of the Muncie public library Friday, July 4. After the usual business session Dr. U. G. Poland, president of the Eighth District Medical Society, and vice-president of the Indiana State Medical Association, delivered a strong address on "The Physician's Duty in the Prevention of Moral and Social Diseases."

Dr. Poland entered into the spirit of the day and impressed his hearers with the idea that their professional duty often became a patriotic duty as well.

We celebrate the day of our forefathers who contended in an age when liberty and equality before the law were an issue, but we live in an era of criminal abortion and the prevention of conception. It has been wisely said that the training of the child should begin with its grandparents. Many a man who boasts of his ancestry will leave a progeny that will have very little reason for family pride.

Self-indulgence and excesses are the destructive germs that are destroying both root and branch of the great social tree. Disrespect for embryonic life is an evil which is undermining the foundations of our social structure. The creation of a new being is the holiest and most sacred duty entrusted to mankind, yet in our generation the matter is lightly considered or ignored. A study of our population shows that those who are best able physically, socially and

financially to rear children usually have the smallest families. These heedless members of society do not seem to understand that an embryo before quickening is not a part of the maternal tissue to be discarded at will or according to whim. The mother is just as responsible for the life of the embryo as for the babe at her breast. A woman is rarely indeed in as good condition physically, and surely never morally, following an induced abortion, as she was before. The preacher of morality must himself be above reproach.

It seems inconsistent to confine a child suffering with an insignificant measles or suspicious sore throat, and allow the virulent gonorrheal or syphilitic to run at large spreading his loathsome disease right and left and extending to generations yet unborn. Parents are coming far short of their duty by their neglect of character building. The increase of moral and social ills are due, to a large extent, to the fact that parents shirk their responsibility. A position of confidence and trust must exist between parent and child. The Golden Rule should be taught and enforced in every home, and the child should learn that one of the noblest virtues is for the strong to protect the weak. The minister preaching repentance and the blotting out of sins to the young man should also explain that the results of venereal disease are not easily or quickly eradicated. Printed instructions regarding the care and transmission of venereal diseases should be given to every physician for distribution where needed. Boards of health should file records of cases of venereal disease and this record should be consulted by the clerks of courts when about to issue a marriage license. Through our bodies must be transmitted what there is of human life, be it good or bad. Mrs. Snoden said, "Women rule the world because they rule the child." I want to substitute this wording. Women would rule the world if they would rule the child. Then let us, this patriotic day, frankly acknowledge the supreme position of the devoted mother and consider it an honor and patriotic duty to assist her in her task.

Dr. W. W. Spurgeon spoke of the decadence of the human race. The impossibility of finding a perfect specimen of manhood; prematurely aged at 60, where he ought to retain vigor till 120.

Dr. Whitney favors the reporting of every case of gonorrhea or syphilis, and the record to stand to the credit of every patient till he is pronounced cured by his physician.

Dr. Fair spoke of the thanklessness of the reformer's task and how often the physician who has the good of the race at heart is considered a meddler, and his giving timely advice considered "butting in."

Dr. E. S. Green deplores the ignorance of the public and recommended the publication, in daily papers, of addresses like that of Dr. Poland.

Dr. Wadsworth is in favor of a law that will make venereal diseases reportable to sanitary or other officers and the prohibition of those who cannot present a clean bill of health from marrying. Dr. Fisher and Dr. Peyton also made complimentary remarks regarding the paper of Dr. Poland.

Adjourned.

H. D. FAIR, Secretary.

DUBOIS COUNTY

The DuBois County Medical Society met at Birdseye, July 15. Dr. A. Jeffers of Birdseye read a paper on "Acute Enterocolitis," and Dr. Leo A. Salb of Jasper read a paper on "Blood Pressure."

After the scientific session Dr. Jeffers entertained the visiting physicians at dinner at the Jackson hotel. Adjourned.

E. A. STURM, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 N. Dearborn Street, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

EMETINE HYDROCHLORIDE.—Emetine Hydrochloride is the hydrochloride, $C_{20}H_{41}N_3O_5 \cdot 2HCl \cdot 2H_2O$, of an alkaloid found in ipecac. It occurs as a white crystalline powder, soluble in water, yielding a neutral solution. Emetine Hydrochloride acts similarly to ipecac, but is relatively more nauseant and less emetic, and causes relatively less renal irritation, but more cardiac depression. Emetine Hydrochloride in the form of injections has been reported to be of especial value in amebic dysentery.

EMETINE HYDROCHLORIDE, MERCK.—Merck & Co., New York.

AMPULS EMETINE HYDROCHLORIDE, MUIFORD.—Each ampul contains emetine hydrochloride 30 mg. H. K. Muirford & Co., Philadelphia, Pa. (*Jour. A. M. A.*, July 5, 1913, p. 27).

ACNE VACCINE.—For description of Acne Vaccine see N. N. R., 1913, p. 221. Greeley Laboratories, Inc., New York City.

COLON VACCINE.—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Greeley Laboratories, Inc., New York City.

PYOCYANEUS VACCINE.—For description of Bacillus Pyocyaneus Vaccine see N. N. R., 1913, p. 222. Greeley Laboratories, Inc., New York City.

GONOCOCCUS VACCINE.—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Greeley Laboratories, Inc., New York City.

MENINGOCOCCUS VACCINE.—For description of Meningococcus Vaccine see N. N. R., 1913, p. 223. Greeley Laboratories, Inc., New York City.

PNEUMOCOCCUS VACCINE.—For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Greeley Laboratories, Inc., New York City.

STAPHYLOCOCCUS ALBUS VACCINE.—Greeley Laboratories, Inc., New York City.

STAPHYLOCOCCUS AUREUS VACCINE.—For description of Staphylococcus Vaccine see N. N. R., 1913, p. 225. Greeley Laboratories, Inc., New York City.

STREPTOCOCCUS VACCINE.—Greeley Laboratories, Inc., New York City.

STREPTOCOCCUS ERYSIPELATIS VACCINE.—For description of Streptococcus Vaccine see N. N. R., 1913, p. 226. Greeley Laboratories, Inc., New York City.

TYPHOID BACILLUS VACCINE.—For description of Typhoid Bacillus Vaccine see N. N. R., 1913, p. 227. Greeley Laboratories, Inc., New York City.

TUBERCULIN B. E.—For description of New Tuberculin, Koch, Bacilli Emulsion ("B. E.") see N. N. R., 1913, p. 233. Greeley Laboratories, Inc., New York City (*Jour. A. M. A.*, July 5, 1913, p. 27).

DIPLOSAL.—Diplosal is the salicylic ester of salicylic acid, $\text{HO.C}_6\text{H}_4\text{COO.C}_6\text{H}_4\text{COOH}$. It is white, almost tasteless and almost insoluble in water. While diplosal is insoluble in dilute acid, it is soluble in alkaline liquids with gradual liberation of salicylic acid, accordingly it passes the stomach unchanged, but is readily absorbed in the intestine. Diplosal may be used where salicylic acid or salicylic acid derivatives are indicated. It is marketed as a powder and in tablets.

DIPLOSAL TABLETS, 7½ GRS.—Each tablet contains 0.5 gm. diplosal. Merck & Co., New York (*Jour. A. M. A.* July 12, 1913, p. 121).

REFORM IN MEDICINES

PHYSICIANS AND THE PHARMACOPEIA.—Believing that it is the province of the medical profession to designate the drugs that shall be included in the Pharmacopeia, the Section on Pharmacology, at the recent meeting of the A. M. A., adopted the following resolution: "Resolved, That the section request the House of Delegates of the American Medical Association to urge on the Committee of Revision of the Pharmacopeia of the United States that the selection of articles to be included be left to the Committee on Scope, in which the medical profession has a majority representation, rather than to the Executive Committee, which represents mainly the pharmaceutical profession, and which has overridden half the changes advocated by the Committee on Scope." The resolution was endorsed by the House of Delegates (*Jour. A. M. A.*, June 28, 1913, p. 2086).

PURE DRUGS.—With a view of emphasizing the need of a more vigorous enforcement of laws, federal and state, relating to pure drugs, the Section on Pharmacology, at the recent meeting of the A. M. A., adopted the following motion: "Resolved, That the Section on Pharmacology and Therapeutics requests the House of Delegates of the A. M. A. to bring this matter to the attention of the proper federal and state authorities, and urge on them the need for more energetic and effective action in this direction." The motion was endorsed by the House of Delegates, which also advised that the matter of securing the enforcement of state laws should be taken up by the individual state associations (*Jour. A. M. A.*, June 28, 1913, p. 2086).

THE COUNCIL ON PHARMACY AND CHEMISTRY.—Torald Sollmann reviews the preliminary work of the Council on exposing the abuses which had crept into the exploitation and marketing of proprietary medicines and outlines its present efforts to bring about a more rational use of medicines, as illustrated by the issuance of a book on "Useful Remedies" and publication of a series of articles on the possibilities and limitations of vaccine therapy. In discussing the results of the work, Sollmann points out that while

conditions are not as they should be, they have improved vastly. Secret nostrums, worthless remedies, blatant advertisements and extravagant claims have not been suppressed, and while some frauds have sunk into oblivion others have arisen. It is significant, however, that new nostrums are not appearing at the former rate. Remedies are used with more discretion. Testimonials of worthless drugs are not given with liberality by careless, if well-meaning, physicians; the tone of the advertisements has become much less extreme, the claims much more conservative. All this means that the profession is more critical, less inclined to believe that the latest advertised fad must be best; less reliant on biased manufacturers as the exclusive source of therapeutic information. The interest in exact therapeutic observation and experiment is much greater. The teaching of these subjects in our medical schools has vastly improved (*Jour. A. M. A.*, July 5, 1913, p. 5).

NUTRIENT ENEMA.—The daily urinary nitrogen output of patients receiving enema of eggs or milk "peptonized" a few minutes, failed to give evidence of more than traces of absorbed protein products. Amino-acids prepared from milk by digestion for twenty-four hours with a vigorous pancreatic enzyme were apparently well absorbed. Dextrose was absorbed better than lactose and checks the losses due to inanition. For patients suffering from gastric ulcer, useful enemas can be prepared by vigorous pancreatic predigestion of milk, with subsequent addition of 5 per cent. of dextrose (*Jour. A. M. A.*, July 12, 1913, p. 123).

THE TOXICITY OF DIPLOSAL.—Dr. John MacLachlan reports clinical tests which show that, contrary to the claim of the manufacturer, Diplosal, if given in the same manner as other salicylates, produces the same symptoms of toxicity and with equal severity. The drug was administered by mouth in capsules. The tests show that not only is Diplosal toxic, but smaller doses suffice to produce the toxic effects than are required with sodium salicylate. While the average toxic dose for sodium salicylate was found to be 190 grains, the toxic dose of Diplosal was found to be 92.2 grains (*Jour. A. M. A.*, July 12, 1913, p. 116).

DIPLOSAL.—Diplosal, salicyl-salicylic acid, has been marketed with the claim that it does not produce gastric and other "toxic" effects of salicylic compounds. As this claim was questionable, Dr. John MacLachlan made, for the Council on Pharmacy and Chemistry, a series of clinical tests which showed that Diplosal produced the toxic as well as the anti-rheumatic effects in approximately half the dose of sodium salicylate. A similar series of tests made in Germany for the manufacturer of Diplosal also showed toxic effects, but from them it appeared that the toxicity was less than that of sodium salicylate. The manufacturer of Diplosal having agreed to give publicity to the results of Dr. MacLachlan as well as to those obtained in Germany, the Council voted to accept Diplosal for inclusion with New and Nonofficial Remedies (*Jour. A. M. A.*, July 12, 1913, p. 127).

CARELESSNESS IN PHARMACY.—M. I. Wilbert tabulates the reports of federal and state authorities on the quality of pharmaceutical products found in pharmacies. The large proportion of unsatisfactory products found he ascribes to indifference or carelessness engendered by the countless variety of medicinal preparations which the pharmacist must keep in stock. He believes that in a shop devoid of "side-lines," that is, equipped with the necessary analytical apparatus, it would be possible to exercise efficient control over a reasonable number of well-defined medicaments. He thinks that a more restricted materia medica will do much to improve the quality of drugs (*Jour. A. M. A.*, July 19, 1913, p. 189).

TOXIC EFFECTS OF LUMINAL.—Two cases are reported which seem to show that the use of Luminal is likely to lead to some difficulty when repeated doses are given. In the cases reported the action of the drug did not make itself manifest until an accumulative reaction had set in, which then produced untoward symptoms. The maximum dose, 0.8 gm., given by the manufacturers, should not be exceeded (*Jour. A. M. A.*, July 19, 1913, p. 192).

KEEPING QUALITIES OF DIGITALIS AND ITS PREPARATIONS.—The strength of digitalis and digitalis preparations depends on their keeping qualities and on the manner in which these have been treated or prepared. As the crude drug varies considerably, digitalis preparations should be made from physiologically assayed drugs. Fluidextract of digitalis is difficult to prepare and generally unreliable, as is also the pseudo-tincture made therefrom. Preparations containing little alcohol, as the infusions, are likely to deteriorate. The low alcohol content of digalen may explain its variability. The wide-spread view that digitalis leaves, fluidextract and tincture of digitalis are prone to rapid deterioration is unfounded (*Jour. A. M. A.*, July 19, 1913, p. 202).

MISBRANDED DRUG PREPARATIONS.—The federal authorities have issued "Notices of Judgment" for misbranding under the Food and Drugs Act, in regard to the following: Denton's Healing Balsam, Allan's Compound Extract of Damiana, Hamburg Stomach Bitters, Dr. Bennett's Wonder Oil and Pale Orange Bitter (*Jour. A. M. A.*, July 19, 1913, p. 211).

CASOID FLOUR.—J. P. Street having stated that Casoid Flour, an article accepted for New and Non-official Remedies, contained 2.2 per cent. carbohydrates, the secretary of the Council on Pharmacy and Chemistry states that the article was free from sugar and starch when accepted by the Council, and that a specimen recently examined in the Association's laboratory was also found free from sugar and starch (*Jour. A. M. A.*, July 19, 1913, p. 212).

SERUM TREATMENT OF MENINGITIS.—After years of study the Rockefeller Institute has issued a report on the treatment of epidemic meningitis. From the available records of the mortality of the epidemics which prevailed in the United States and Canada in 1904 to 1909 and in the winters of 1911 to 1913, the record of fatalities is above 70 per cent. Similarly the epidemics in foreign countries have given a death rate above 70 per cent. The analysis of the results in 1,300 cases treated with serum supplied by the Rockefeller Institute shows that the mortality of epidemic meningitis can be greatly reduced by the serum treatment. While the average mortality during the pandemic was 70 per cent., that in the serum treatment cases was about 30 per cent. The success of the treatment depends on the age of the patient and the period of the disease when the subdural injections are begun (*Jour. A. M. A.*, July 26, 1913, p. 281).

"NULIFE."—An illustrated price list being sent to physicians by Truax, Greene & Co. devotes space to the exploitation of "Prof. Charles Munter's Nulife Shoulder Braces and Supporters." Nulife, physicians are told, "makes the weak strong and happy, the strong impervious to common ills." Those who wear Nulife "cannot possibly become sick or overheated." Furthermore we learn that "the human body represents the most perfect system of circulation and ventilation ever created," but unfortunately this system of ventilation and circulation is frequently impaired by careless individuals who allow their "shoulders to drop downward," which results, according to Truax, Greene & Co., in "congealing the intestines." The matter presented for the information of physicians is so full of misstatements of facts that even the advertising copy-writers of rank patent medicines would be ashamed to stand sponsor for it (*Jour. A. M. A.*, July 26, 1913, p. 292).

ENESOL.—Enesol has been claimed to be a salicyl arsiniate of mercury, a molecular combination of monomethyl arsinic acid and a double salicylate of mercury and sodium, but no definite formula for the compound has been furnished. Enesol was considered by the Council on Pharmacy and Chemistry and refused recognition because the origin and composition were not given, because the manufacturer had made misstatements regarding the identity of the preparation and because the advertised composition did not agree with that found by analysis in the Association's Laboratory (*Jour. A. M. A.*, July 26, 1913, p. 293).

BOOK REVIEWS

SURGERY OF THE EYE. A Hand-Book for Students and Practitioners. By Ervin Torok, M.D., Surgeon to the New York Ophthalmic and Anral Institute, etc., and Gerald H. Gront, M.D., Assistant Surgeon to the New York Ophthalmic and Anral Institute, etc. Octavo, 507 pages, with 509 original illustrations, 101 in colors, and two colored plates. Cloth, \$4.50, net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

This is one of the best treatises devoted exclusively to the surgery of the eye, and it should be welcomed as a valuable addition to the library of any physician, but more particularly those practicing Ophthalmology as a specialty. It is a therapeutical work in which the authors give very clear indications for operative treatment and then give detailed description of the subjects of each operation that is indicated for the relief of the condition under consideration. This description includes a list of all the instruments required, the technic of their use, the complications that may occur during and after the operation, and the post-operative care required. The illustrations are abundant and excellent from every point of view. All of the operations generally used to-day are included in the descriptive matter, together with a number of improved operations which the authors have found especially useful. A careful inspection of the work will indicate the thoroughness with which the authors covered the subjects under consideration, and we therefore have nothing but praise for their efforts.

CLINICAL LABORATORY METHODS.—A Manual of Technic and Morphology Designed for the Use of Students and Practitioners of Medicine. By Roger Sylvester Morris, A.B., M.D., Associate Professor of Medicine in Washington University, St. Louis; formerly Associate in Medicine, the Johns Hopkins University; Assistant Resident Physician, the Johns Hopkins Hospital; Instructor in Medicine and Demonstrator of Clinical Medicine, the University of Michigan. Cloth, 343 pages. D. Appleton & Co., New York and London, 1913.

The appearance in modern medical literature of so many text-books on laboratory methods and clinical pathology is an earnest of the importance attached to this branch of modern medicine.

This work of Morris' is in nowise a clinical pathology, but a condensed résumé of the most recent and useful laboratory methods in their application to clinical medicine. For the significance of the laboratory findings, it is expected that the fuller works, dealing particularly with clinical pathology, will be consulted.

The author has made a careful selection of those methods which his own experience proved to have been most useful and practical in the laboratory, and has endeavored to present them in such a way that they will be most readily handled by the modern clinician. Wherever it has been possible, the shorter and more practical methods have been described in order to promote the greater conservation of time for the average practitioner.

As a handbook to modern laboratory methods, this little work will certainly serve a useful purpose.

TUBERCULIN—In Diagnosis and Treatment. By Francis Marion Pottenger, A.M., M.D., LL.D., Medical Director of the Pottenger Sanatorium for Diseases of the Lungs and Throat, Monrovia, Cal. 243 pages, with 35 illustrations, including one plate in colors. Cloth. Price, \$3.00. St. Louis: C. V. Mosby Company, 1913.

There is a distinct field for the sort of work that Dr. Pottenger has here presented, and we know of no one who could better handle the subject when experience is taken as the basis of treatment of a subject. This work represents the results of a careful study of over 2,000 cases, under the best conditions of régime and control, and the profession is fortunate in having at hand in such concise form so many reliable data on a subject of everyday importance. After emphasizing the importance of the tuberculin test in the early diagnosis of tuberculosis, the various tests are taken up and discussed in detail, to be followed by a very full discussion of the therapeutic use of tuberculin, its indications and contra-indications, its variations in value, certain phases of the symptomatology under its use, the technic of administration, and the whole followed by an appendix concerning Koch's discovery of tuberculin.

All told, the work offers a most interesting and practical working guide for the general practitioner, as well as the specialist in this line of treatment.

LABORATORY METHODS. With Special Reference to the Needs of the General Practitioner. By B. G. R. Williams, M.D., assisted by E. G. C. Williams, M.D. Second edition. Illustrated with forty-three engravings. 210 pages. Cloth. Price, \$2.50. St. Louis: C. V. Mosby & Co. 1913.

This little volume shows how the general practitioner can, at a very small cost, equip a laboratory in which he can do most excellent work. It demonstrates that costly apparatus and marble rooms are not necessary for the prosecution of scientific medicine. Dr. Victor Vaughan, who wrote the introduction to this book, very justly calls attention to the fact that there is nothing more hopeful in the practice of medicine to-day than the thorough way in which many general practitioners are doing their work.

We desire to endorse everything that Dr. Vaughan has said in approval of this excellent manual, which has been especially designed for the general practitioner who desires to make easily and inexpensively examinations on which he may depend. The authors have simplified the methods, both as to apparatus and technic, though none of the essential factors have been omitted, but have been emphasized in such a manner as to indicate their importance. Only the best tests are given, so that the reader will not be perplexed by being obliged to do any choosing for specific

cases. Stress has been laid on safe diagnosis, and sources of error as well as the value and limitation of tests have been pointed out.

This second revised edition contains some added descriptions of the albumin sputum test for tuberculosis, Bass and Watkins' rapid Widal method, Noguchi's butyric acid test for syphilis, and the urobilinogen test for hepatic function.

The book will prove a very valuable working manual for the busy general practitioner, and it deserves and should have a wide circulation among those for whom it is intended.

PROGRESSIVE MEDICINE.—A Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia, assisted by Leighton F. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia. Volume II, June 1913. Lea & Febiger, Philadelphia and New York, 1913.

This second number of the present volume takes up in order, hernia by Coley; surgery of the abdomen, exclusive of hernia, by Gerster; gynecology by Clark; diseases of the blood, diathetic and metabolic diseases, diseases of the thyroid gland, nutrition, and the lymphatic system by Stengel; and ophthalmology by Jackson.

Perhaps the most interesting section of the work in this number is that of Gerster's, and particularly his discussion of surgery of the alimentary tract.

As usual, Clark devotes a very considerable amount of space to the subject of cancer of the uterus, although there is but little that is new to be presented in this field. He also devotes a rather unusual amount of space to the use of the x-ray in gynecology.

Of Stengel's section, perhaps the most interesting discussions are those of certain of the anemias and diseases of the thyroid gland.

EPIDEMIC CEREBROSPINAL MENINGITIS.—By Abraham Sophian, M.D., formerly with New York Research Laboratory. Cloth, 272 pages, 23 illustrations. Price, \$3.00. St. Louis: C. V. Mosby Company, 1913.

The appearance of what is said to be the only English monograph on this important and interesting disease should meet with a ready response on the part of the profession, not only because of the interest in the subject itself, but also through a recognition of the ability of the author to handle the subject in a thoroughly scientific and practical way. Dr. Sophian's experience in the research laboratory of New York, together with that in the Texas epidemic of 1912, gives him the right to speak authoritatively on the subject at hand.

The purpose of his work has been to offer a thorough but simple description of the clinical and laboratory findings in this disease and to so interpret the laboratory descriptions as to familiarize the reader with their application of treatment and clinical analysis of the disease.

One of the most unique features of the work is the record of the author's experience in the use of blood-pressure as a control for the proper dose in the therapeutic administration of the serum.

The work is a useful little monograph on a subject that any general practitioner may at some time or other in his clinical experience be called on to handle.

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VOLUME VI

FORT WAYNE, IND., SEPTEMBER 15, 1913

NUMBER 9

ORIGINAL ARTICLES

SOME OBSERVATIONS ON THE DETAILS OF ABDOMINAL SURGERY *

THOMAS B. EASTMAN, M.D.
INDIANAPOLIS

In tracing the development of the technic of abdominal surgery the writer's observations reach back almost to the very beginning so far as this community is concerned—to the time when the prospective patient was thoroughly purged, dieted to weakness and almost to starvation—to the time when an honest but vain effort was made to avoid infection by the most complicated antisepsis and asepsis, and neither secured—when pedicles and arteries were tied with non-absorbable ligatures of a size almost sufficient to have hanged the patient—when non-suppurative cavities were drained and after the operation the drainage tube evacuated with a syringe, which, during the intervals of use, was carefully kept in a solution of bichlorid of mercury, which it was fondly hoped was antiseptic.

But the art of abdominal surgery has progressed, has changed, and that change has ever been in the direction of simplicity. Having almost discarded antisepsis we know that asepsis is little more than cleanliness, and nature having been assisted ever so little will bring matters to the desired end if we will but keep our hands off and give her the opportunity.

Fortunately the laity is becoming educated to the hospital idea. But this is not always an unqualified blessing. Nowadays almost every town of any size has what is called a hospital, so called largely by courtesy. The income of these institutions is small and they are not properly equipped.

Not infrequently they have been installed in some old residence long since discarded as fit for human abode, they are insanitary, have a single bathroom with the plumbing of thirty years ago. Their management is often under those who have no knowledge of the requirements of such an institution. Their operating-room and post-operative technic are such as to strike terror to a painstaking surgeon and their nursing is worse. And although the writer would do every operation in a well-appointed hospital—were it possible—he submits that having sent ahead an intelligent nurse to make careful preparation for the work, a house operation is to be preferred to one in certain hospitals which he has in mind.

It is a good practice and almost a general one to have the patient enter the hospital the day before that set for the operation whenever and wherever it is possible. This gives opportunity to the attendants to make thorough preparation and to the patient an opportunity to become acquainted with his or her surroundings. However, it is almost impossible in this time to get the bowels in proper condition. It would be well if the attending physician would begin preparation at least a week beforehand wherever this can be done, not by purging, but by such attention to the bowels as will have them thoroughly evacuated without formation of gas. This is best done by diet and the administration of either castor oil or liquid albolin. It is not feasible properly to prepare the intestines for abdominal operation after the patient enters the hospital unless the patient enters several days before the day set for the operation. The writer has frequently examined patients whose abdomens were flat and intestines empty only to find on the morning of the operation the intestines were greatly distended, making proper procedure very difficult. This condition is simply due to the administration of violent purgatives and the failure to empty the bowels

* Read before the Indiana State Medical Association, Indianapolis, Oct. 11, 1912.

of gas. It is a mistake to diet a patient too severely. Many a naturally strong patient has been so strictly dieted and so severely purged before operation as to be brought to the operating-table almost on the verge of collapse. The patient should be allowed to eat almost *ad libitum* up to and including the evening meal the day before the operation. A moderate dose of castor oil or liquid albolin given the night before and a properly given enema—preferably of soap suds—ought to be sufficient to put the bowels in proper condition if the treatment outlined as advisable before the patient has entered the hospital is carried out.

In so far as the anesthetic is concerned, it is interesting to note to what ends various investigators, experimenters and surgeons have gone in their effort to find a substitute for ether, and it is quite as interesting to note that the popularity of ether as a general anesthetic has grown, notwithstanding the number of substitutes that have been proposed. In the opinion of the writer ether is the ideal anesthetic; that is, ether properly, skillfully administered. There are very few cases in which it cannot be administered with as great a degree of safety as can any other anesthetic, and very many cases where it can be administered with vastly more safety than can others.

It has been said that ether patients frequently die several days subsequent to an operation and that death is ascribed to some intercurrent condition, when, as a matter of fact, it was due to ether. Be this as it may, to quote a famous surgeon, "the patient has at least a chance to bid his family and friends good-bye," an opportunity not afforded those who die from chloroform. The argument that ether may produce nephritis or aggravate the disease in one already suffering from it is a specious one. We have administered ether to patients varying in age from 6 months to 87 years for various operations of sufficient number to warrant us in drawing the conclusion that except in rare exceptions ether is the anesthetic of choice.

The proper administration of ether requires much more skill than that of any other anesthetic, either local or general. Not a little will depend on the manner of the anesthetist. He who would succeed in the administration of any general anesthetic must study the make-up, the disposition, the frame of mind, as well as the condition of the patient's various internal organs. There is much to be gained by a proper attitude toward the patient. A weak, frail woman needs an assuring word; the big, blustering man needs

to be told not to resist, and in all cases it is well to explain to the patient just what sensations may be expected; that a choking sensation will be relieved by swallowing, and that no attention need be paid to a smothering sensation. It is a good idea to keep up a running fire of talk, or to do anything that will distract the mind of the patient from himself or herself. It is a mistake to direct the patient to breathe deeply. It is much better to direct him to breathe naturally.

So far as the devices for the administration of ether are concerned, it does not matter much what they are so that they can be used without the withdrawal of the device from the face of the patient. The mask should have a sufficient surface so that, notwithstanding the constant dropping of the ether, there will at all times be a dry surface on which the ether may be dropped, because naturally a liquid like ether volatilizes much more rapidly and efficiently if dropped on a dry surface.

There comes a stage in ether administration when the patient stops breathing, but the fact that the heart is good and the skin a good color shows that this condition is apparent and not real, and here it is not uncommon to see the inexperienced anesthetist begin shouting to the patient to breathe and to press on the chest in an ill-directed effort to establish the supposed-to-be stopped respiration. At this stage the patient is semi-conscious, knowing much of what is going on and the alarm of the anesthetist passes to the patient and it is then almost impossible to secure a good anesthesia. This, of all times, is the time to crowd the ether. Five or six minutes are sufficient to anesthetize the ordinary patient and this is not knocking him down with the anesthetic. The patient is much better off to be well anesthetized in five or six minutes with 2 or 3 ounces of ether than he is to be anesthetized in sixty seconds with a pound of ether. Once the operator is through the abdominal wall the amount of ether used can be much diminished. However, this does not apply to acute peritoneal inflammations. The habit of punching the eyes to determine whether or not the patient is anesthetized is a bad one. The many reasons are obvious. The anesthetist who cannot tell the condition of his patient without resorting to this practice should retire.

Ordinary commercial soap is as good as any for washing the hands. Gauze is quite as good as a brush. Alcohol used after the soap and water not only affords a fairly efficient antiseptic.

but tends to fortify the skin against the irritation caused by frequent scrubblings.

If the patient be one of cleanly habits the field of the operation may be sufficiently sterilized immediately preceding the operation. Plain soap and water are sufficient and these should be applied also not with a rasping brush, but with a piece of gauze. So far as various solutions used, either Harrington's solution or tincture of iodine may be used, but it is necessary that the skin be dry before the iodine is applied. There is nothing in the inch-and-a-half incision, week-and-a-half in bed, and evanescent scar slogan. The length of the incision has little or nothing to do with the result of the operation, although the statement that a larger incision heals as quickly as a small one is only a half truth, since the chances of infection do increase somewhat with the length of the incision. Wherever it is possible, the incision should be large enough to give the free access to the cavity—large enough, if possible, so that all manipulation can be done under the eye.

For the most part catgut is the suture and ligature material of choice, and there is a commendable tendency to use catgut of smaller caliber than formerly. The growing disuse of the mass ligature has made this possible. Certainly there is rare occasion for the use of larger suture or ligature material than No. 2 and under most circumstances No. 1, or even No. 0 or No. 00 will suffice. It does not require a great deal of pressure to occlude the lumen of an artery, particularly if it is not surrounded in tying with a mass of tissue. The promptness with which the peritoneum heals is well known, and suture material which will hold the parts in position twenty-four hours is sufficient.

The writer incloses the incision in three layers of sutures: peritoneum with No. 1 plain catgut running; the fascia No. 1 chromic interrupted, and the skin with No. 2 plain catgut running subcuticular. The through and through suture is not used for two reasons. In the first place it tends to strangle the arteries in either side of the incision and thus impede the healing process, and in the second place, unless a double-needled suture is used it is necessary to carry the needle through the skin and thus frequently carry an infection into the deep tissues. If the fascia is properly sutured there need be no hernia and it is doubtful if a through and through suture tends at all to obviate this condition. An abdominal binder is not recommended, as it serves no purpose. If an incision is so poorly put together that vomiting or straining would rend it asunder

a binder would not possibly prevent it. Not only that—it is frequently put on so tightly that moderate distension of the intestines gives rise to much distress.

Gastric lavage is used as a routine for the reason that it seems to reduce postoperative nausea to a minimum. After the patient is put to bed little medication is used, because it is believed that in practically all cases the patient's fate is sealed when he or she leaves the operating-table. Patients are allowed to assume any position in bed which they desire and allowed to change this position frequently. Meat broths are avoided on account of their tendency to form gas. So far as possible the bowels are left to themselves and weakening purges avoided, and once the bowels have moved the patient is allowed a rather liberal diet in the belief that consistent feeding will bring back the patient's strength much more effectively than will artificial stimulation by strychnin, digitalis and such medicines.

DISCUSSION

DR. T. B. NOBLE, Indianapolis: This paper is a very practical one, dealing as it does with the universal requirements of abdominal surgery, with the methods of preparation, somewhat with the technic, with the detailed care and management of our cases, and therefore must be of interest to every abdominal surgeon. I think that it is entirely proper to deal with the commoner every-day uses and practices of our art; to recall and to review the trusted and tried methods which relate to the conservation of human life.

The doctor discusses the preparation of the patient, the care of the skin, the attention given to the gastro-intestinal canal, the character of the wound, its after care and consideration, its treatment, the after care and treatment of the patient and with the anesthetic. And with his advice I can say truthfully that I am most heartily and most generally in accord. I do not favor and I do not suppose that you men of experience agree in every detail with his advice, but I am quite sure that we agree in the main with what he says, because the principles are based on good philosophy.

Dr. Eastman advises ether. Ether is his choice, ether is my choice, and I believe ether is generally the choice for anesthesia. Yet there are men who give chloroform and give it skilfully. There are men who use adjuncts in anesthesia. I have noticed that the H. M. C. tablet is used by many throughout the state, and they think well of it; but I have tried it and find it unsatisfactory.

We have in our midst, however, one man in particular who uses it almost exclusively, and I am confident that it gives him, with his experience, great satisfaction, but for me it does not

work. I have had bitter experiences with it. I have been in the habit for two years and better of proceeding ether with somnoform. Nitrous oxid is used frequently to precede ether. I wish that in every locality I could find some men who were particularly interested in anesthesia and who would become specialists in that line. Anesthetics are usually not satisfactory when given by inexperienced hands. One must have experience to properly administer an anesthetic.

Simplicity is safety when properly applied, and should be the keynote in the preparation of the field of operation. In the last thirty months I have been discarding water and the old way of scrubbing the field, and I don't care whether the patient has received any preparation at all before he is brought on the table. With an experience now of a good many hundred cases, I can say that my results with the present method have been better than with the old bichlorid preparation that I formerly used. The fields of my operations are now prepared as follows:

1. Hairs and scales are shaved and scraped away with a razor.

2. Field thoroughly scrubbed with gauze saturated with sulphuric ether, which makes the skin more receptive to

3. Full strength tincture of iodine; which is fanned dry with sterile towel.

By such a simple preparation as this I have had just as good results, and even better results, in fact, than I have ever had previous to the use of this plan. It is simple, quick and efficient. It is the best means for home operations which we are so frequently called on to perform.

DR. T. C. KENNEDY, Indianapolis: I think that many of the hospitals in the small towns have been up to the standard of the hospitals in the city; at least I can speak for the small town of Shelbyville. For five years I used ehloroform exclusively. I can say that in all my work I have never had a bad result from the use of it. I prefer to have the anesthetist use the anesthetic he is accustomed to giving. Recently I have used nitrous oxid in a few cases and found it satisfactory. I believe it is giving good results and it is only a question of a short time until it will be given more than at present. I don't like to use the H. M. C. tablets, as they do not give good results. My preparation is done entirely after the patient is on the operating-table, and I don't believe the scrubbing and purging preparation as done years ago are necessary. It is our own experience and not the text-book which gives us efficiency.

DR. T. B. EASTMAN, Indianapolis: I think when Dr. Kennedy spoke of the smaller hospitals he considered only the one at Shelbyville. He controls that hospital himself and trains his own nurses. But when one goes out to operate at some hospitals and sees the sort of old "boss

nurse" who admits you, you realize at once that you can't tell that woman anything. You must manage your case according to her ideas. If you are permitted to send out a nurse and your own assistants to a good clean farm house, you have, in a sense, your own hospital. If you go to a small hospital you operate under their conditions, and I do not think it is fair for Dr. Kennedy to compare conditions in his own hospital with conditions in the average small hospital.

SOME OBSERVATIONS ON ACUTE APPENDICITIS

E. RAY ROYER, M.D.
NORTH SALEM, IND.

The subject of appendicitis, though one with which the medical profession has been familiar for many years, and with which our best thinkers and hardest workers have labored, still remains, in many of its phases, a topic of much speculation and doubt.

Appendicitis is probably the most frequent causative factor requiring surgical interference within the abdomen, and it seems strange that since the condition is usually one in which diagnosis is a simple matter, the clinical picture having been dwelt on by many writers for the past fifteen or twenty years, the mortality still remains far above what one could reasonably expect from a condition almost entirely devoid of mortality under favorable conditions.

In going over the literature at hand, we find much on pathology and treatment and little indeed on etiology, and we seem almost helpless to prevent the occurrence of the disease or to offer intelligent suggestions as to how it may be avoided.

It is true we give dietary instructions and tell patients to watch their habits, avoid constipation, etc., and we do the same in all cases of preventive medicine, but this will not suffice. After seeing ease after ease stricken down, and on opening the abdomen finding evidence of pus in nearly every case, we begin to wonder just how much we can attribute to constipation, errors in diet, concretions or traumatism. Is it not more reasonable to suppose that we have a bacterial infection similar to that of typhoid, dysentery and other enteric diseases? The ileum and ascending colon contain many bacteria and the ileum has perhaps a greater variety, though not a greater number than the colon. Among those most commonly found are the colon bacillus and the pyogenic organisms, more especially the streptococcus and staphylococcus. Is it not likely then that these organisms are held in check by other bacteria

present in the digestive tract, and by the intestinal secretions, so that they are unable to multiply in a significant manner, or gain entrance into the cells of the mucous membrane until this restraint is overcome by dietary errors, alterations in the secretions of the intestines and general depressed conditions, and, as a result, definite infection may result?

However difficult it may be to demonstrate in the laboratory, there are stages of growth in which organisms vary greatly in their power to produce toxemias. Wide-spread as the colon bacillus is, it is only in some stages, and under certain conditions, that it forms a dangerous infective medium. In clean cases they may escape into the peritoneum without doing harm, while the same number migrating through the walls of a gangrenous appendix would probably give rise to a general infection which no amount of cleansing and irrigation would overcome.

The comparison intended is the same as that which may be made between the organism of diphtheria, as demonstrated in the nasal discharges without true diphtheritic infection, as compared with the same organism appearing in the infectious stages of true diphtheria. The application holds good in typhoid and perhaps other infections.

The deduction is this, that under the conditions which obtain when the bowel wall is acutely inflamed, especially when the blood-supply is suddenly cut off, and the appendicular canal is transformed into a closed cavity, either through swelling of the mucous membrane, strangulation or obstruction, virulent states of previously benign organisms may rapidly develop.

We must abandon then the old theory of a foreign body entering the appendix, injuring the walls and causing peritonitis by perforation. Dieulafoy, in formulating a theory of appendicitis, says, "Appendicitis results from the transformation of a part of the appendicular canal into a closed cavity, which becomes a focus of infection and intoxication, due to the increased virulence of the imprisoned microbes."

The canal may become obliterated in a part of its length either by concretions, which, by the way, are spoken of in text-books far more frequently than they are found in actual practice; also by strangulation and kinks or by swelling of the infected tube.

It matters little how the obstruction takes place, the fact of obliteration and a closed infected cavity remains, and from the moment the microbes are imprisoned in the cavity, if they are endowed with sufficient virulence, appendicu-

lar symptoms will be present, and if the lumen of the tube remains closed, abscess, gangrene, perforation and peritonitis will probably result.

I believe appendicitis to be an infection similar to other enteric diseases, and in no other way do I account for three cases in a family of four in eighteen months. In one family of three, they were all operated on within two years. Three have been stricken in one family in a number of instances. Four children from 7 to 14 years of age, who lived on opposite corners of the same street, and who were much in each other's company, were all operated on within two weeks. Where one case appeared in a family, other cases often developed, and in some cases, as cited above, the disease was checked only after having exhausted available material. Referring briefly to the diagnosis of this malady, I am convinced that errors in diagnosis are due, not to obscurity of the symptoms, in older patients, at least, so much as to failure to make a thorough physical examination. How many of us have seen cases which were being treated for "biliousness," indigestion, congestion of the bowels and other equally obscure cognomens.

However, I think that the fatalities in this condition are due not so much to faulty diagnosis as to the supreme egotism of the physician whose diagnostic acumen leads him to give a favorable prognosis early in the disease and relies solely on ice-bags, hot-water bottles, external or internal medication, and in some instances, even salines or other cathartics, until perforation and subsequent shock cause him to call a surgeon, who should have seen the case at the expiration of twenty-four to thirty-six hours, if the patient had not shown marked improvement in that time.

There is no one who can say positively which case may recover and which one will go on to abscess formation, general peritonitis and death. If we could differentiate the two classes, our course would be simple indeed, but it must be remembered that often the cases in which the symptoms are most striking and severe, do not show lesions more grave than those in which the disease had apparently started as a mild case, and in fact, my cases which were perforative in type, save one exception, suffered far less pain, less tenderness, rigidity and general discomfort, with the exception of gastric symptoms, than those which had acute exacerbations of a recurrent or relapsing form, due no doubt to adhesions and nerve impingement in the latter forms and to deadening of sensibilities through toxic absorption in the preceding.

Most important in the case of appendicitis is the concealment under which this process at times proceeds. A patient may appear perfectly well till within twenty-four or thirty-six hours of the time he is brought to operation. For a part of that time the symptoms may be so mild as not to confine him to his bed, and to his friends or even to his medical attendant, there seems little cause for anxiety. The temperature may be slight and he suffers little pain, though for the first few hours it may have been severe. Only the pulse seems suspiciously high. Twelve hours later an altogether different clinical picture may be present; the pulse is 120 or 130 and feeble, tongue dry, leaky skin, anxious facies, distention and tenderness over abdomen, vomiting or nausea still persists. The patient who seemed in good condition the first day is at the end of twenty-four to thirty-six hours on the verge of the grave.

In spite of removal of the appendix at this time, early in days, but late in infection, there is little hope for the patient. But even at this stage I still subscribe to immediate operation, provided the case is not over thirty-six hours old, rather than wait for cooling, with all its attendant risks, to take place.

It is the treacherous character of infection of the appendix, its power of remaining latent or concealed and bursting forth into an overwhelming toxemia that furnishes the keynote for the management of the disease.

There are many doctors who do not believe in the methods advocated herein, and we have heard of considerable criticism on the management of the cases in our vicinity. To these I would say, in our experience with nearly seventy cases operated on early, the mortality has been *nil*. In five cases operated on late or after cooling had taken place, four died, a mortality of 80 per cent. You will never regret having operated on a case early, but you may often regret having waited, thereby jeopardizing the life of your patient and your own professional reputation.

I do not wish to be misquoted, or to have it understood that I believe that every case of acute appendicitis should be operated on. I do not advise operation in over 25 per cent. of my cases. Some cases are so light as to almost escape notice, but repeated attacks may do irreparable damage, and the recurrent forms are often operated on because of the inconvenience and annoyance to the patient, who would rather spend a few days in bed than to be subject to these recurrent attacks with the unpleasant train of symptoms, such as constipation, gastric distress, tenderness and the knowledge that his condition may at any

time call for an operation of necessity rather than one of election.

However, many of these light cases will recur a few times, the symptoms growing milder with each attack and finally entirely disappear. Nevertheless, in acute cases of a severe type, whether there is imminent danger of perforation or not, even though there be no immediate indications of peritonitis, still a competent surgeon should be called at once. Very few surgeons subscribe to the doctrine that all cases are operative, but since it may be necessary at any hour to open the abdomen, the surgeon should be allowed to help solve the question, Shall we operate in this case, and if so, when? Surely in a disease that so baffles the skill of both physician and surgeon, developing suddenly and often manifesting a fatal virulence and toxicity without previous warning, they should stand together from the time the disease is recognized, or even strongly suspected.

The medical treatment of this disease resolves itself merely into the things we should not do, rather than those we should do. Dieulafoy, Osler, Anders, and these are all internists, not surgeons, say, "There is no medical treatment for appendicitis."

About the only thing left for us to do is to place the patient in a semi-reclining position, which favors drainage by gravitation, or at least retards extension of the disease upward. Enteroclysis may be permissible, provided Murphy's method is used, and it does not cause increased peristalsis: some cases are extremely sensitive to very small quantities of water in the rectum. An ice pack or hot water may give some relief and neither is objectionable. Further than this the treatment is entirely symptomatic, and if any other medication is used it should be by the hypodermic method if possible.

Use nothing locally that will blister or affect the condition of the skin, as it may interfere with operative measures, and at times might obscure a somewhat useful guide or index, an area of hyperesthesia over McBurney's point.

Never give drugs that will mask the symptoms, increase peristalsis or destroy the nervous tone. Keep the patient as quiet as possible. Undue moving about in bed favors perforation. This is especially true of children, as peritoneal inflammation and abscess formation are early features in a good many cases.

Withhold food and even water as far as possible, and if at the end of thirty-six hours at most, marked improvement is not manifest, operation should be performed. Advice other than this no

man has a right to give. The management of late cases presents special problems and will not be discussed.

The following cases illustrate the rapidity with which perforation and peritoneal involvement may proceed:

CASE 1.—Mr. O. F., aged 36, suffered attack of appendicitis in 1910; some tenderness present at intervals and one or two light attacks during the year. On Sept. 14, 1911, I was hurriedly called to see him, as he had been kicked by a horse in the right abdomen. Examination revealed no discoloration or abrasions, as he was standing close to the animal and the injury amounted to a shove rather than a blow. Patient was conscious, pulse 80, temperature normal and the severe abdominal pain was the only symptom worthy of note. This condition continued for about forty-eight hours, with no fever, no abdominal distention, nausea or vomiting. Only the pain persisted. About the morning of the third day, however, the clinical picture was greatly changed. Still no external marks of violence, but tenderness over the appendix marked. Pulse 120, temperature 102, chills, great abdominal distention, vomiting, pain in abdomen more severe and evidence of progressing peritonitis conclusive. A surgeon was called at once, and we saw the patient in the afternoon of the same day, but owing to the conditions described, operation was postponed. One week later he was operated on. The abdomen was loaded with pus, fecal material and the fecal fistula remained open for ten weeks. During the first eight weeks he had no natural bowel movements, as entire contents of bowels, food and water passed through fistula. He made a slow but rather uneventful recovery covering a period of five months, and it is only in the last six months that he has been able to perform any considerable amount of manual labor.

CASE 2.—I was called near Pittsboro, about 10 a. m., on June 1 of last year to see A. P., aged 13, male, who was taken suddenly ill in the early morning and had felt bad the previous day. He was suffering with acute pain in the right abdomen, some tenderness, but not marked, and pronounced rigidity of right rectus muscle; vomiting, skin moist, leaky one might say, running pulse, temperature 101 and evidence of severe systemic infection. Immediate operation was advised and at 4 p. m. he was relieved of a gangrenous perforated appendix followed by a prompt recovery, with patient about the house in ten days.

CASE 3.—This is almost identical in symptomatology to Case 2. On September 25 of last year I was called to see F. T., male, aged 16. He was suffering from what the family supposed to be a bilious attack and had been given a generous dose of Epsom salts pending my arrival, and no particular apprehension on the part of the patient

or family was apparent. Patient had gathered corn the day previous and gone to bed in his usual health. On my arrival at 10 a. m. I found him with a pulse of 110, temperature 101, vomiting, moist skin and rigid abdomen. No pronounced pain, and tenderness over appendix very slight. Immediate operation was advised and he was removed at once to the New Methodist Hospital and operated on at 4 p. m. The appendix had perforated and a serous exudate filled the peritoneal cavity. This patient also made an uneventful recovery and returned home in sixteen days.

At this point I would ask, what would have been the result in the last two cases had we relied on Ochsner's method or Murphy's enterocolysis, or any other line of treatment for the classical forty-hour limit? Would not the result even at best have been merely a repetition of Case 1?

In conclusion I wish to emphasize Osler's statement, "There would be no percentage of deaths from appendicitis if every case commencing with acute pain and developing tenderness and rigidity of the abdomen and quickening of the pulse were operated on within twelve hours."

I have purposely omitted any allusion to chronic appendicitis, as each case presents its own problem and must be dealt with according to conditions present.

THE Wayne Pharmacy is the name of a new Ft. Wayne institution which has been established to do a prescription business and furnish supplies to physicians and hospitals. The institution is owned and controlled by over fifty physicians living in the city of Ft. Wayne who have decided to give their support to a pharmacy which will be strictly ethical in its conduct, carry nothing but the purest chemicals and drugs and the best of physicians' and hospital supplies, and under no consideration to carry or furnish patent medicines or do counter prescribing. The enterprise deserves success, and its patronage already indicates that the institution is appreciated by a large number of medical men.

THE law requires that all cases of typhoid fever and tuberculosis shall be reported to the Board of Health. It is quite evident that many physicians are ignoring the requirements of the law, and it may not come amiss to call their attention to the fact that failure to report typhoid and tuberculosis cases may result in prosecution and subsequent fine if convicted. Some of the health officers throughout Indiana have threatened to institute prosecution for violations of the law, and they should be supported in this action.



A. C. KIMBERLIN
PRESIDENT INDIANA STATE MEDICAL ASSOCIATION, 1912-1913



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RICHMOND



CHAS. N. COMBS
SECRETARY
TERRE HAUTE

THE WEST BADEN SESSION

THE WEST BADEN SESSION

The annual session of the Indiana State Medical Association will be held in West Baden, Thursday and Friday, Sept. 25 and 26, 1913. West Baden is a small town of some 800 inhabitants, nestling in the hills of Orange County, reminding one of an Alpine village. It is reached by the Chicago and Louisville division of the Monon Railroad or the St. Louis-Louisville division of the Southern Railway. It is surrounded by many points of historic interest and scenic

can, therefore, be reached by horseback, vehicle or motor.

Notwithstanding that West Baden is but a small town, yet owing to the fact that it is a resort, it is provided with very best and most ample hotel accommodations, the West Baden Springs Hotel alone, which is headquarters and where most of the meetings and exhibits of the Association will be held, has a capacity of 728 rooms, and is quite sufficient to entertain all visitors to the association; the Homestead, a



H. C. SHARP
Chairman Committee on Arrangements



M. A. BOOR
Chairman Surgical Section

beauty, among which may be mentioned Outlaw Cave, which in former years was the rendezvous of a band of criminals and cut-throats which terrorized southern Indiana; Cross Cave; the Gorge, than which can be found no more beautiful scenery in its natural state; Mt. Arie, three-fourths of a mile back of the West Baden Springs Hotel, the highest point in the state; Lost River, a natural phenomenon in which an entire river disappears from view to reappear about eight miles distant, a condition which no geologist has satisfactorily explained; and Dr. Bowles' residence, the house in which the Knights of the Golden Circle was organized during the Civil War. All of these places are of easy access, inasmuch as there are splendid macadam roads and

modern, fireproof hotel of 100 rooms; the Colonial, and numerous other smaller hotels where desirable quarters can be secured. There is a modern and well-equipped hospital in connection with the West Baden Springs Hotel. There is also a well-appointed garage and machine shop in connection with the hotel for the use of motorists.

The railroad facilities are excellent, twelve trains arriving and leaving daily over the Monon and Southern.

ARRANGEMENTS

The committee on arrangements announces that every effort has been put forth to insure success of the West Baden session. The Vandalia and Monon railroads have promised to have a

doctors' special train leave Indianapolis at 2:30 p. m., Wednesday, September 23, the same arriving at West Baden at 6 p. m.

The bureau of information and registration will be in the lobby of the West Baden Springs Hotel, where all doctors and those accompanying them will please register on their arrival.

The House of Delegates will hold its meetings in the hospital dining-room, the first meeting being called at 8 p. m., on Wednesday evening, September 24.

All general meetings will be held in the Opera House which adjoins the West Baden Springs Hotel and has a seating capacity of 800.

The meetings of the Medical Section will be held in a separate room in the same building.

ENTERTAINMENTS

The local committee on arrangements has endeavored to arrange the entertainments in such a way that they will in no wise conflict with or hinder the scientific work. Following the meetings of the House of Delegates on Wednesday evening, there will be an informal smoker held in the atrium of the West Baden Springs Hotel, where both food and liquid refreshments will be served in abundance. The ladies will attend this informal meeting, and those who desire to dance will be afforded the opportunity in the lobby of the hotel.

An automobile drive will be given for the ladies on the afternoon of the 25th, around what is known as the 26-mile circle, passing through the



F. B. WYNN
Chairman Medical Section



THOS. B. EASTMAN
Secretary Surgical Section

Meetings of the Surgical Section will be held in the ball-room on the third floor of the West Baden Springs Hotel, and the meetings of the Eye, Ear, Nose and Throat Section will be held in Parlor "B" of the West Baden Springs Hotel.

EXHIBITS

The commercial exhibit for the West Baden Session will be arranged in spaces surrounding the central fountain in the atrium of the West Baden Hotel. There will not be a large number of exhibitors present this year, but it will be of a first-class order, representing firms that are friendly toward the Indiana State Medical Association, and since they help us defray the expenses of the session they should receive the careful attention of the members.

most beautiful scenery in the Middle West; and the Gorge, a most beautiful and delightful spot where luncheon and refreshments will be served.

On the night of the 25th there will be the entertainment as it appears on the program, after which there will be a ball in the ball-room of the West Baden Springs Hotel.

A bridge party will be given for the ladies on the afternoon of the 26th in the balcony of the West Baden Springs Hotel.

The West Baden Springs Hotel Company, on their own account, have arranged for an exhibition biplane flight for the afternoons of September 25 and 26. This flight will take place from the barrack of the West Baden Springs Hotel at the close of the afternoon section meetings.

The West Baden Springs Hotel Company maintains a splendid golf course and a natatorium. The doctors should bring their golf equipment with them in order that they may have an early morning or late afternoon of golf followed by a plunge in the natatorium, which will revivify and invigorate them and allow them to recuperate from the laborious section work.

REGISTRATION

The registration desk will be open Wednesday evening and all day Thursday and Friday. Please bring your membership cards with you, as it will save you time in registering. Members without their cards may register after their standing has been verified by consulting the records. Members are reminded that this year, for the first time, they are required to designate under which sec-

Association. County society secretaries must see to it that credentials for the delegates are in the hands of Dr. Allen Pierson on or before the first called meeting. The House of Delegates will convene promptly at 8 p. m., Wednesday, September 24, and again at 8:30 a. m., September 26.

CHAS. N. COMBS, Sec'y.

NOTICE TO COUNTY SECRETARIES

The fifth annual conference of the county secretaries will be held this year at 8 a. m., Thursday, in the form of a complimentary secretaries' banquet provided by President Kimberlin. While the attendance last year on Wednesday afternoon was very gratifying, there were still more secretaries present the next day, and, therefore, it has been planned to have the secretaries breakfast together with Dr. Kimberlin an hour



CHARLES G. BEALL
Secretary Medical Section



J. H. BLACK
Secretary Eye, Ear, Nose and Throat Section

tion they wish to be enrolled, i. e., Surgical, Medical, or Eye, Ear, Nose and Throat. You are requested to wear the official badge, which is supplied when you register, while attending or participating in the section meetings.

OFFICIAL CALL TO THE HOUSE OF DELEGATES

The next annual session of the Indiana State Medical Association will be held at West Baden, Thursday and Friday, Sept. 25-26, 1913. On a basis of the ratio established by the By-Laws, there will be this year a possible 110 delegates distributed as follows: Marion County, 5; Allen, Vanderburgh, Vigo and Lake, each 2; the other eighty-two counties each one, the thirteen councilors and the president and secretary of the State

and a half before the regular program Thursday morning. There will be no formal papers, but a few of the live secretaries will open a general discussion concerning some points which make for progression or retrogression in county societies. In another column your society will be asked to see that you are present at this meeting, and the least it can do in furtherance of this plan is to pay your expenses to the meeting.

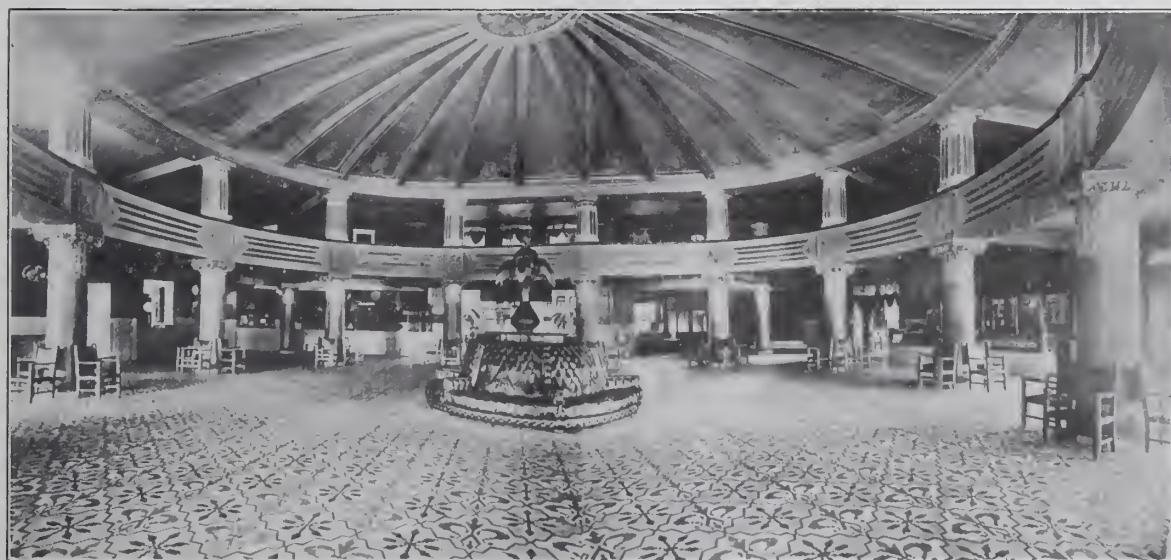
CHAS. N. COMBS, Sec'y.

ANNOUNCEMENT FROM THE COMMITTEE ON SCIENTIFIC WORK

Following the custom of previous years, the committee on scientific work urges essayists and discussants to be brief, and to keep within their



WEST BADEN SPRINGS HOTEL



LOBBY — WEST BADEN SPRINGS HOTEL

subjects; furthermore, to be prompt, to the end that the program may be completed duly. The committee also wishes to call attention to the matter of communication between essayists and their discussants previous to the meeting. If possible, the completed paper should be submitted to the appointed discussants. The presentation of illustrative cases will add much to the value of contributions.

It is suggested that those discussants who desire to present subjects in a concise yet comprehensive manner will find it to their advantage to prepare discussions in advance, or at least to deliver their discussions from notes that have been prepared in advance.

All manuscripts, including discussions that have been read, should be handed to the stenographer immediately after presentation.

With a view to facilitating the work of the stenographers and to give a better representation of the association's work in the published proceedings in *THE JOURNAL*, each discussant is especially urged to announce his full name and residence when getting up to speak.

PROGRAM OF THE ANNUAL SESSION OF THE INDIANA STATE MEDICAL ASSOCIATION

TO BE HELD AT WEST BADEN, SEPT. 25
AND 26, 1913

GENERAL MEETINGS

Thursday, 9:30 a. m.

SYMPOSIUM—CHRONIC BRIGHT'S DISEASE

1. (a) Symptomatology and Diagnosis.

G. W. McCASKEY, Fort Wayne.

Abstract.—Bright's disease should be conceived of not simply as a lesion of the kidneys, but as a widespread pathological process involving many tissues and organs. It is always of hematogenous origin and due to toxins circulating in the blood, and the kidneys suffer most because it is their function to remove these toxins, the irritant effect of which is, therefore, accentuated on these organs. The cardiovascular apparatus comes next in line, sometimes owing perhaps to greater vulnerability, suffering even more than the kidneys.

The symptoms are the combined result, first of chronic intoxication with relatively slight kidney involvement, aggravated later by limitation of kidney function which forms a vicious circle, intensifying the toxemia which produces the kidney lesion.

In making diagnosis, clinical history and physical examination are factors of first importance. The presence of albumin and casts does not prove Bright's disease, nor their absence exclude it. Routine examination of urine should be supplemented whenever necessary by functional kidney tests and analysis of the blood. The phthalein test is the best routine

method for determining kidney function in general, but is not parallel with the urea excretion, which, in common with the salt and water output, should be separately determined as a basis for classification of Bright's disease from the standpoint of renal pathology, more important than anything else in the treatment of these cases.

2. (b) Renal Pathology and Urinary Findings.

HENRY R. ALBURGER, Indianapolis.

Abstract.—On account of the very general misconception of the relationship between the urinary findings in cases of disturbed renal function and the findings at autopsy, it has seemed desirable to the author to report a small series of cases which have come to autopsy at the Indianapolis City Hospital, showing the gross changes in the appearance of the kidneys, the most marked microscopic alterations and reporting at the same time the cause of death and the anti-mortem urinary findings.

3. (c) Vascular Changes Secondary to Bright's Disease.

C. F. NEU, Indianapolis.

Abstract.—Outline of the most important points in the structure and function of the renal system and its relation to the normal cardio-vascular system. Enumeration of the changes found in interrelated pathological states of the one or the other system. A résumé of the views in regard thereto of men who have written on this subject. The probable primary causative factors. Warning against danger of lowering blood-pressure too rapidly or too profoundly in the course of treatment.

4. (d) Eye Lesions

ALBERT E. BULSON, JR., Fort Wayne.

Abstract.—Bright's disease often shows characteristic eye lesions. In the optic nerve the lesion manifests itself in reddening and partial obliteration of the disc. The retina and its immediate neighborhood is usually opaque and striated. In various localities in the retina, usually more numerous in the macular region, may be seen hemorrhages and white patches due to degeneration and inflammation. In the macular region these white patches are generally arranged in the form of a stellated figure. Anatomically these patches and areas of inflammation consist of cells filled with fat granules, dense masses of varicose nerve fibres, accumulations of fibrinous exudate, amorphous debris, and masses of round cells consisting probably for the most part of white blood-cells (Haab). In most cases there are distinct signs of arteriosclerosis which may be seen by ophthalmoscopic examination. These signs consist of tortuosity of the smaller blood-vessels, white lines or streaks bordering the arteries, and indentation of the veins wherever the arteries cross. In the very early stages of a Bright's disease the fundus lesions are not prominent, but close inspection will often disclose a milky discoloration in the macular region due to inflammatory or degenerative changes.

5. (e) Influence of Kidney Lesions in Determining the Selection of Anesthetic and Surgical Risks, Operative Procedures and Postoperative Results.

MILES F. PORTER, Fort Wayne.

Abstract.—The kidney purely an excretory organ; function; ability for overwork. Experimental and clinical observations. Effect of acute infections and certain drugs. Importance of knowing status of kidney function before advising for or against operation; cause of kidney inadequacy, etc. Degree or extent of kidney lesion of prime importance.

Value of phthalein test. Casts and albumin following general anesthesia; infiltration anesthesia safer, but not always practical; ether usually more danger-

ous to kidneys than chloroform. Changes in vessel walls and high blood-tension occurring in some kidney lesions contra-indicate nitrous oxide. In acute nephritis, gas oxygen or local anesthesia should be chosen, unless for some particular reason.

Certain acute surgical conditions require operation regardless of kidney condition, but even here kidney condition should be known, when practicable, before deciding on the exact operative technique. Preliminary treatment is important with a view to preventing serious accidents of kidney origin following surgical operations.

Discussion opened by F. B. Wynn, Indianapolis; H. H. Sutton, Aurora, and H. H. Martin, LaPorte.

Friday, 2 p. m.

6. The X-Ray as a Diagnostic Aid in Gastric Lesions.
R. D. CARMAN, Rochester, Minn.

the stomach. Variations in shape and position as revealed by bismuth skiagram. Type of stomach in robust individuals, asthenic, thin or anemic, etc. No normal type of stomach.

Any stomach not considered abnormally low unless greater curvature falls, when erect, at least two inches below umbilicus. Distinguish between gastropotosis, without any falling of pylorus, and those cases in which pylorus and body of stomach are both down; former more serious.

Diagnosis of general visceroptosis; casual inspection; percussion; palpation, the latter to be relied on only after stomach has been inflated. Importance of skiagram of colon filled with bismuth enema in diagnosis of enteroptosis. Diagnosis of general visceroptosis unscientific and incomplete. These organs merit further study. Definite causes for ptosis; complications; employment of x-ray. Careful history; physical and blood examination; gastric and intestinal analysis; proper interpretation of findings of bismuth skiagrams



SPRUDEL SPRING PAVILION

SYMPOSIUM—VISCEROPTOSIS

7. (a) Symptomatology.

J. C. SEXTON, Rushville.

Abstract.—The symptoms presented by cases of visceroptosis vary in different individuals. The patients are all autotoxic with pronounced expression on the part of the nervous system in insomnia, headaches, restlessness and muscular weakness. Often cardiac irregularity and intermission overshadow all other symptoms. Imperfect digestion, gas formation in the stomach and intestines and habitual constipation are almost universally present.

8. (b) The X-Ray Diagnosis.

A. M. COLE, Indianapolis.

Abstract.—Importance of x-ray in diagnosis of visceroptosis; gastropotosis and enteroptosis. The bismuth skiagram in study of normal and abnormal digestive organs; size, shape, position and action of

and fluoroscopic study should be employed in moderate or extreme cases. Especially imperative where surgical measures are contemplated.

Importance of discovery of possible organic disease; carcinoma; gastric or duodenal ulcer; pyloric adhesions from gall bladder or appendix disease; pericolic membranes; kinks or stricture of small bowel or colon; mobile caecum; incompetency of iliocecal valve; ileal stasis, loss of tone, weakened peristalsis, etc.

Accurate conclusions within reach of every physician. Complete examination imperative before proper treatment can be employed. Accuracy and completeness of x-ray diagnosis. Importance of more than mere statement for impression of patient's mind; value of skiagraph when surgery has been advised. Technique of x-ray diagnosis in abdominal adhesions; proper interpretation of skiagraph findings and x-ray plate; history, chemical and physical examination.

Lantern slide demonstration.

9. (c) Medical Treatment.

WALKER SCHELL, Terre Haute.

Abstract.—Prophylaxis. Rest in bed. Care of congenitally predisposed children before development of visceroptosis. Regulation of diet. Diet of beefsteak and eggs for anemic girls. Importance of sunshine and fresh air. Sports and gymnastics, but in moderation. Proper tonus of abdominal muscles important. Care of sexual habits at puberty to prevent exaggerated development of nervous features. Supports in pendulous abdomen. Zinc oxide plaster bandage; enterphor. Relief of constipation; massage; diet; laxatives. Arsenic and iron indicated, except where gastro-intestinal irritation is produced; bitter tonics and alkaline waters. Tact in dealing with neurasthenic patients. Value of travel in this class of cases.

10. (d) Present-Day Status of Surgical Treatment.

EDWIN WALKER, Evansville.

Abstract.—In our present incomplete understanding of visceroptosis, exact indications for operation are difficult to formulate. In no class of cases is cure and good judgment more necessary. Good results are obtained by a wise selection of cases only. All prolapsed viscera do not require operation, but in suitable cases surgery effects a cure in a reasonable percentage. Operations may be divided into four types:

1. Those for correcting relaxation of abdominal wall.
2. Those for shortening the visceral supports.
3. Those for attaching viscera to abdominal wall.
4. Resections and anastomoses of hollow viscera.

Two or more of these may be combined.

Discussion opened by L. Park Drayer, Fort Wayne; Geo. Denny, Madison, and J. R. Eastman, Indianapolis.

MEDICAL SECTION

Thursday, 2 p. m.

1. The Need of a State Detention Hospital for the Early Diagnosis and Treatment of Acute Mental Diseases.

FRED M. TERFLINGER, Logansport.

Abstract.—The value of early individual treatment. Public proceedings restrain rather than invite commitment. Voluntary admissions to state hospitals should be made possible. The best results cannot be obtained by an intermingling of the acute, chronic and convalescent cases, but the crowded condition of the state hospitals for insane, the nursing problem and incomplete equipment make satisfactory individual treatment and care an impossibility. The Central State Psychopathic Hospital should be located near a general hospital and medical college, but each state hospital caring for all classes of insane should also have attached to it a psychopathic hospital with modern equipment, an ample medical staff, a trained nursing staff and ample funds for its proper maintenance.

2. Crime as an Expression of Physical and Mental Inferiority. D. C. PEYTON, Jeffersonville.

Abstract.—The question of determining some of the underlying causes of crime, and just what influence such causes exercise on the somatic and psychic development, have always been interesting. An analysis of more than 5,000 cases committed to the Indiana Reformatory would seem to indicate an apparent anthropological inferiority. The writer is of the opinion that so-called crime is simply an expression

of mental enfeeblement, and these findings are such to lead us to wonder whether after all the theory of Dr. Marrow, that the whole condition is due to a form of malnutrition of the central nervous system, does not really express a large measure of truth. The findings of the psychological laboratory of the Indiana Reformatory, covering now something more than 500 cases, would seem to indicate that the belief that crime is an expression of mental deficiency is well founded.

Discussion opened by Paul S. Johnson, Sheridan, and Paul E. Bowers, Michigan City.

3. Care and Treatment of Pneumonia.

JAMES B. MAPLE, Shelburn.

Abstract.—Bacteriology and pathology of pneumonia. Its rational treatment. Its infectiousness and prevention. Care and conservation of the patient. Treatment of cough and pain. Use of applications. Routine use of nitroglycerin. Care of the heart. Special supervision of the period of crisis. Use of bacterins. Results in one hundred twenty cases.

Discussion opened by W. H. Foreman, Indianapolis, and W. F. Howat, Hammond.

Friday, 9 a. m.

4. Importance of a Blood Examination in Diagnosis. CHAS. P. EMERSON, Indianapolis.

Abstract.—Examination of the blood. The history of blood examinations. Limitation of the red blood-cells count. Limitations of the hemoglobin estimations. Morphology. Value of examination of the red blood-cells. The limitations of leucocyte counting and the value of this examination. One count means little; the curve much. Coagulation of the blood. When this should be determined. The limitations of the chemical analysis of the blood. Precipitins. Biological tests. Blood-cultures; agglutinins; antigens.

Discussion opened by C. S. Bond, Richmond, and Harry Langdon, Indianapolis.

5. The Prevention of Epilepsy.

W. C. VAN NUYS, New Castle.

Discussion opened by Albert E. Sterne, Indianapolis, and Max Bahr, Indianapolis.

6. Colonic Alimentation.

A. B. GRAHAM, Indianapolis.

Abstract.—Colonic alimentation may prove to be a most important agent in the therapy of nutrition. Indications. Absorptive power of the colon. Nutritive enemata versus calorific requirement of a patient. Non-irritating action of enema and possibility of its being retained is of the greatest importance. Ranks a poor second to feeding by the mouth. One cannot prognosticate the value of the procedure. Method of the administration: size; number; constituents; conclusions.

Discussion opened by C. H. McCully, Logansport, and A. C. McDonald, Warsaw.

7. The Relation of Typhoid and Paratyphoid Fever. WILL SHIMER, Indianapolis.

Abstract.—1. B. paratyphoid and mild typhoid cases are in most instances indistinguishable clinically. Differentiation may be made by agglutination test or isolating bacilli from blood, feces or urine.

2. B. paratyphoid B. is cause of majority of paratyphoid infections.

3. So-called ptomaines poisonings are due to the food, usually meat, being infected with *B. paratyphoid B.*

4. Paratyphoid fever is a much more difficult problem from the hygienic standpoint than typhoid because the *B. paratyphoid B.* causes diseases in animals as well as in man.

Discussion opened by B. W. Rhamy, Fort Wayne, and Chas. Stoltz, South Bend.

SURGICAL SECTION

Thursday, 2 p. m.

1. Manner of Growth and Surgical Treatment of Cancer of the Breast.

W. D. GATCH, Indianapolis.

Abstract.—The pathologic principles on which the modern operation for cancer of the breast is founded. Evidence against the belief that cancer metastases are produced by emboli of cells in the blood-vessels. Evidence for the view that cancer spreads by permeation of the lymphatics. Importance from an operative standpoint of this fact. The extent and technique of the complete operation. Statistics of operative results. Hopefulness of operation in early cases.

2. Cancer Prophylaxis.

MURRAY N. HADLEY, Indianapolis.

Abstract.—Preventive medicine is a larger factor in conservation of human health than is curative medicine. The efficiency of prophylaxis when directed toward any disease depends first, on a knowledge of at least some of the factors of etiology, and second, on a wide dissemination of that knowledge to the public. By making use of the knowledge already at hand and obtained by clinical observation which has shown the very frequent existence of a premalignant lesion, the profession is in a position to make substantial progress in cancer prophylaxis. Prophylaxis is possible in all skin cancers; cancer of the lip, breast, rectum, uterus, and to some extent gall-bladder and stomach. The principles of preventive medicine must be applied to the treatment of cancer if the death rate is to be materially lessened because all so-called early diagnoses are late diagnoses, as it is generally impossible to make a diagnosis unless there be infiltration or metastasis, at which time the disease ceases to be a localized, curable cancer. The precancerous lesion must be sought for and eliminated.

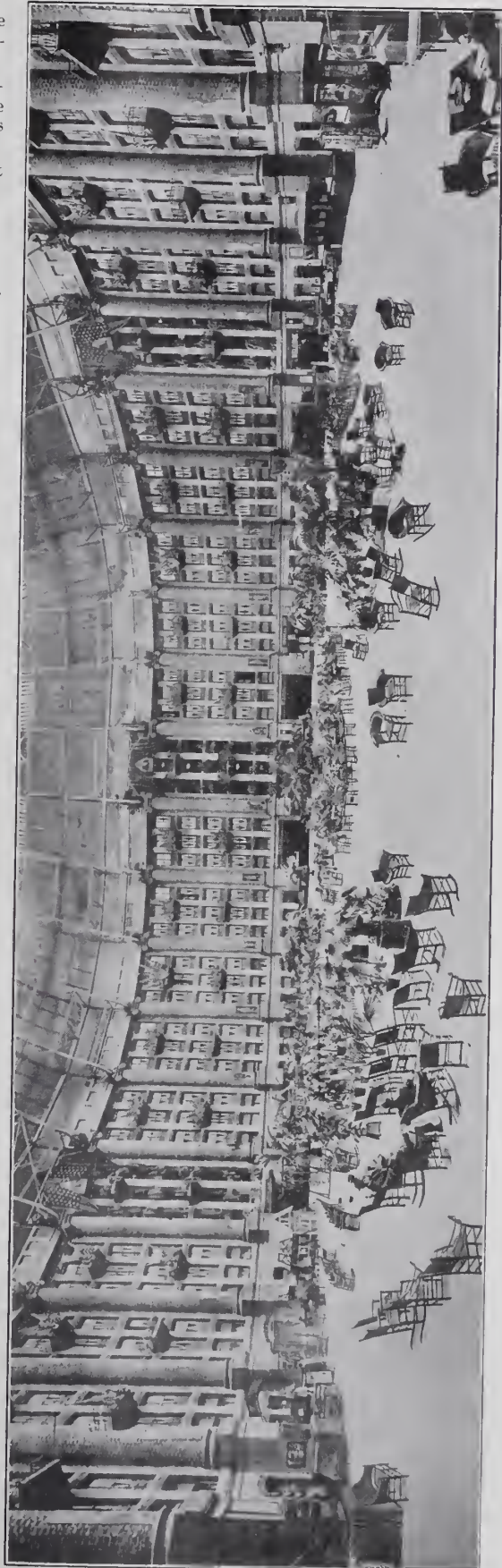
Discussion opened by M. I. Rosenthal, Fort Wayne, and Paul Martin, Indianapolis.

3. Early Diagnosis of Ruptured Ectopic Pregnancy.

CHARLES SUDRANSKI, Greencastle.

Abstract.—The consideration of the subject, "The Early Diagnosis of Ruptured Ectopic Pregnancy," is entered into with the idea that if we can make an early diagnosis of this condition, much of the argument now indulged in regarding the time of operation will be avoided, and that patients suffering from this condition will receive surgical attention before their condition becomes alarming or before the pathological changes subsequent to the rupture have become so complex as to require very extensive manipulation and dissection. Two cases are reported and the symptoms in each case are considered at some length. The belief is advanced that a sufficiently characteristic picture may be observed soon after the rupture of the ectopic pregnancy to make a diagnosis, even though the symptoms be rather mild and transitory in character, as they frequently are.

Discussion opened by J. H. Weinstein, Terre Haute, and R. O. McAlexander, Indianapolis.



ATRIUM (INNER COURT) WEST BADEN SPRINGS HOTEL—LARGEST IN THE WORLD

Friday, 9 a. m.

4. Hypernephroma. T. M. JONES, Anderson.
Discussion opened by B. Van Sweringen, Fort Wayne, and A. P. Roope, Columbus.

5. Stricture of the Urethra. H. G. HAMER, Indianapolis.

Abstract.—Usual text-book definition. A more comprehensive definition. Varieties of stricture, with definition and consideration of their cause, time of occurrence, number and caliber. Classification of stricture, based on examination of the urethra with exploring instruments. Location of stricture within the three divisions of Sir Henry Thompson and the frequency with which stricture occurs in each division.

Pathology.—Organic stricture a cicatrix.—Tendency toward contraction and probable cause thereof. In more advanced cases involvement of the corpus spongiosum as well as the urethral wall.

Pathological Histology.—Soft and hard infiltration of Oberlander based on microscopic examination of the urethra. Resolution of inflammation or chronicity with transformation of cellular into fibrous tissue.

Symptomology.—Variation of apparent symptoms. Symptoms of stricture of small caliber differ greatly from those of large caliber. Presence of organic stricture may be unsuspected for years. Gleet discharge one of most constant symptoms. Frequency of urination, pain, referred or reflected pain, hemorrhage, sexual disturbances and changes in the character of the stream.

Retention of Urine.—Effects of long-continued obstruction to urination with possible results.

Discussion opened by J. P. Salb, Jasper, and W. S. Ehrich, Evansville.

6. Relation of the Anesthetist to the Surgeon and Patient. A. C. ARNETTE, LaFayette.
Discussion opened by R. E. Holder, Columbus, and A. E. Guedel, Indianapolis.

EYE, EAR, NOSE AND THROAT SECTION

Thursday, 2 p. m.

1. Chairman's Address. E. DEWOLF WALES, Indianapolis.
2. Indications for Surgery of the Ethmoid and Sphenoid Labyrinth, with Report of Cases. JAMES MCCALL, JR., Terre Haute.

Abstract.—Brief résumé of etiology. Contributory causes, both anatomic and pathologic. Method of examination. Means of diagnosis. Various methods of surgical interference. History of cases.

Discussion opened by Wm. F. Clevenger, Indianapolis, and L. C. Cline, Indianapolis.

3. Ocular Neurasthenia. JOHN R. NEWCOMB, Indianapolis.

Abstract.—An important definite type of neurasthenia, very frequently overlooked and not appreciated in its full significance. The various forms of astigmatism in low degree the most frequent cause. Next to uncorrected errors the vicious overcorrection of the optician is second as a cause of ocular neurasthenia. The pathology of ocular neurasthenia, although somewhat obscure, is nevertheless real. Symptomatology: there are two definite types of ocular neurasthenia, that of depression and that of irritation. These are sometimes sparate, but are more usually intimately blended. Typical case histories illustrative of these conditions. Treatment, prognosis and results.

Discussion opened by Albert E. Bulson, Jr., Fort Wayne, and Geo. F. Keiper, LaFayette.

4. Local Manifestations in the Ear, Nose and Throat, Associated with Disease of the Nervous System. J. HEITGER, Bedford.

Abstract.—Pathologic conditions in ear, nose and throat may affect central nervous system through extension, reflex mechanisms and perverted metabolism. Consideration of distribution and central connections of cranial nerves and brain localizations of special senses associated with functions of ear, nose and throat. Diseases of central nervous system with local manifestations and disturbance of function in ear, nose and throat as seen by otolaryngologist. Important rôle of true and psychoneuroses in producing symptoms in ear, nose and throat. Plea for more accurate diagnosis and rational therapy.

Discussion opened by D. W. Stevenson, Richmond, and L. D. Brose, Evansville.

5. A Brief Consideration of the Occupational Traumatism of the Eye. E. M. SHANKLIN, Hammond.

Abstract.—The study of prevention of eye injuries in our manufacturing plants is comparatively recent, and probably had its incentive in the publicity given to preventable blindness due to disease. Primary injury not alone responsible for all cases of loss of vision. Other potent factors are meddlesome interference on the part of fellow employees, carelessness on the part of the "company doctor," and failure of employee to regard injury as serious.

The more common forms of injury are foreign bodies in the cornea, penetrating wounds of the cornea, burns of the cornea, corneal ulcers, following neglected wounds, injuries due to exposure to intense light and heat.

A consideration of the work of the casualty and safety departments in some of our large steel mills: Methods used in investigation of causes of eye injuries, means employed to safeguard the workman, results obtained in various mills.

Photographs showing how men are protected from accident. The safety committee in railroad work, both in the shop and along the right of way. Recommendations made as result of observations in investigation of this question.

Discussion opened by H. C. Parker, Indianapolis, and C. Norman Howard, Warsaw.

Friday, 9 a. m.

6. Contact Points of Ophthalmology and Rhinology with General Medicine. THEODORE POTTER, Indianapolis.

Abstract.—1. Disorders in early life which may seriously influence the physical development of the individual, such as partial or total blindness or deafness, nasal obstructions, adenoids and recurrent tonsillitis.

2. The diagnostic significance of disorders in these fields with reference to general medicine, as illustrated in such diseases as arteriosclerosis, nephritis, diabetes, syphilis, the anemias and acute and chronic brain lesions.

The importance, therefore, of a constant exchange of knowledge and a close contact between the specialties and general medicine in order that efficient cooperative work may be done.

7. Diagnosis and Treatment of Heterophoria and Heterotropia. FRANK A. MORRISON, Indianapolis.

Abstract.—Paper based on personal experience of the writer. Esophoria most frequent. Then follow in the order named, left hyperphoria, exophoria and right hyperphoria. Cyclophoria very frequent. Imbalance

of vertically and laterally acting muscles easily detected. Cyclophoria frequently overlooked. Maddox rod tests as generally performed inaccurate. Clinoscope accurate but tedious. Use of Maddox rod with stenopaic slit. No one form of pain characteristic of any especial kind of imbalance. Vague symptoms sometimes viewed as neurasthenic caused by cyclophoria.

Treatment.—In very young child with intermittent heterotropia atropia in both eyes. If heterotropia confined to one eye, atropia used in better eye. No pad ever used over better eye. Older children and adults full refractive correction. No prisms used except for low grade of hyperphoria and temporarily for exophoria. Operation early if other methods fail. Little success with muscle exercises or stereoscope. Tenotomy made with tenotome after buttonholing muscle. Lateral attachments of muscle and Tenon's capsule preserved. No strabismus hook or scissors used for severing muscle. In advancement suture material prepared by boiling in yellow wax. Silk best material. In heterophoria Stevens' operation followed, using tenotome instead of scissors. In heterotropia muscle is thoroughly detached from sclera, overlying capsule and lateral expansion by tenotome. Drawn forward by crochet hook or forceps. Never by clamp. No part ever excised. While muscle is drawn forward it is "basted" to overlying conjunctiva and capsule. Scleral stitch vertical at corneal margin. Tendon is forced into pocket beneath conjunctiva extending to corneal margin. Tendon is guided into and held in bottom of pocket by Stevens' stitch.

Discussion opened by W. F. Hughes, Indianapolis, and J. H. Black, Lebanon.

8. Direct Laryngoscopy, Bronchoscopy and Esophagoscopy with the Modified Bruening Bronchoscope. D. W. LAYMAN, Indianapolis.

Abstract.—Historical sketch. Anatomy of the tracheobronchial tree. Instruments. Technic of direct laryngoscopy.

(1) Posture, (2) size of tubes, (3) anesthesia.

(A) Presentation of lingual surface of epiglottis. (B) Passage beyond the epiglottis, autoscopic displacement. (C) Pressing the tubes deeper—possibly through the larynx.

Direct laryngoscopy in children: (1) importance; (2) difficulties; (3) Dr. Johnston's method of direct laryngoscopy in children.

Upper and lower tracheobronchoscopy. The frequency of tracheotomy after the age of 6 years rapidly decreases. Indications: (1) tracheotomy wound already present; (2) when anesthesia is contra-indicated in dyspnea conditions; (3) difficult cases of removal of foreign bodies, size, form, etc; (4) infants; (5) prolonged upper tracheobronchoscopy.

Discussion opened by A. B. Knapp, Vincennes, and K. K. Wheelock, Fort Wayne.

9. Report of a Case of Symptomless Melanotic Sarcoma. A. C. BARTHOLOMEW, South Bend.

Abstract.—Clinical history and pathologist's report in a case of intra-ocular sarcoma presenting no symptoms previous to a cataract operation.

Discussion opened by W. N. Sharp, Indianapolis, and W. J. Leach, New Albany.

Thursday, 8 p. m.

10. Lantern Presentation and Microscopic Demonstration Relating to the Cultivation of the Malarial Plasmodia *in vitro*.

C. C. BASS, New Orleans.

11. Lantern Presentation of Yellowstone Park.

CHARLES TRUAX, Chicago.

REPORT OF COMMITTEE ON ARRANGEMENTS

House of Delegates, Indiana State Medical Association.

Gentlemen:—The committee on arrangements has taken it up with the Vandalia and Monon railroads to have a doctors' special leave Indianapolis at 2:30 p. m., September 24, the same arriving at West Baden at 6 p. m.

The evening of the 24th the House of Delegates will meet in the hospital dining-room at 8 p. m., to continue in session until the aforesaid body chooses to adjourn. After this there will be an informal smoker held in the atrium of the West Baden Springs Hotel, where both food and liquid refreshments will be served in abundance. The ladies will attend this informal meeting and those who desire to dance will be afforded the opportunity in the lobby of the hotel.

All general meetings will be held in the opera house, which adjoins the West Baden Springs Hotel and has a seating capacity of eight hundred. The medical section meetings will be held in the same building. The surgical section will hold their meetings in the ball-room on the third floor of the West Baden Springs Hotel, and the eye, nose and throat section will hold their meetings in parlor B.

An automobile drive will be given for the ladies on the afternoon of the 25th, around what is known as the twenty-six-mile circle, passing through the most beautiful scenery in the Middle West and to the gorge, a most beautiful and delightful spot, where luncheon and refreshments will be served.

On the night of the 25th there will be the entertainment as it appears on the program, after which there will be a ball in the ball-room of the West Baden Springs Hotel.

A bridge party will be given for the ladies on the afternoon of the 26th in the balcony of the West Baden Springs Hotel.

The bureau of information and registration will be in the lobby of the West Baden Springs Hotel, where all doctors and those accompanying them will please register on their arrival.

As will be noted by the arrangement of the program, we expect to make the West Baden session of the greatest scientific interest and have secured Dr. R. D. Carman to deliver a special address on "The X-Ray as a Diagnostic Aid in Gastric Lesions." This will be a splendid address both from the point of scientific interest and entertainment, as Dr. Carman is a master of his subject and will spare no pains in his endeavor to make his address instructive to those who hear him. In our judgment this feature alone is well worth the time that it will take for any physician to attend the annual session of the association.

H. C. SHARP,
J. B. HEITGER,
W. S. SLOAN,

Committee on Arrangements.

REPORT OF SECRETARY

House of Delegates Indiana State Medical Association.

Gentlemen:—At the time of writing this report, September first, with the three-fourths of the year passed, the paid-up membership is 2,480, an increase of 100 over the membership reported this time last year. There are but 216 delinquents which is a smaller number than there were at this time last year. It is fair to presume that the medical defense feature is still operating to a very large extent in

REPORT OF COUNCILOR DISTRICTS

| | Society Dues. | Physicians in County. | Members of Co. Soc., 1912. | Eligible Non-Members. | No of Meetings | General Attendance. | No. Scientific Papers. | No. Case Reports. | Attendance District Soc. | Visits by Councilor. |
|-----------------------|---------------|-----------------------|----------------------------|-----------------------|----------------|---------------------|------------------------|-------------------|--------------------------|----------------------|
| FIRST DIST.— | | | | | | | | | | |
| Pike | \$2.00 | 32 | 15 | ..... | 5 | 6 | 8 | 10 | ..... | ..... |
| Gibson | 2.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Posey | 2.25 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Vanderburg | 3.00 | 132 | 89 | ..... | 14 | 15 | 15 | 14 | 20 | ..... |
| Warrick | 2.50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Spencer | 2.50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Perry | 2.00 | 20 | 12 | 8 | 6 | 5 | 3 | 2 | 1 | ..... |
| Total ..... | ..... | 184 | 116 | 8 | 25 | 26 | 26 | 26 | 21 | ..... |
| SECOND DIST.— | | | | | | | | | | |
| Sullivan | \$3.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Knox | 3.00 | 55 | 43 | 8 | 9 | 12 | 18 | 10 | 5 | ..... |
| Daviess | 2.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Martin | 2.50 | 14 | 12 | 1 | 1 | 8 | 7 | 3 | 0 | ..... |
| Monroe | 2.50 | 34 | 17 | 17 | 12 | 10 | 0 | 0 | ..... | 1 |
| Owen | 2.50 | 22 | 18 | 2 | 1 | 1 | 1 | 1 | 3 | ..... |
| Greene | 3.00 | 45 | 28 | 10 | 10 | 10 | 20 | 12 | 8 | 9 |
| Total ..... | ..... | 170 | 118 | 38 | 33 | 41 | 46 | 26 | 16 | 10 |
| THIRD DIST.— | | | | | | | | | | |
| Clark | \$2.25 | 50 | 23 | 25 | ..... | 5 | 0 | 0 | ..... | 1 |
| Crawford | 2.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Dubois | 3.00 | 26 | 21 | 8 | 12 | 10 | ..... | ..... | ..... | ..... |
| Lawrence | 3.00 | 33 | 24 | 6 | 10 | 10 | 10 | 12 | ..... | ..... |
| Orange | 2.25 | 24 | 19 | 3 | 4 | 6 | 0 | 0 | 8 | ..... |
| Floyd | 3.00 | 40 | 24 | 6 | 8 | 12 | 8 | 6 | ..... | 6 |
| Harrison | 2.50 | 31 | 12 | 13 | 4 | 8 | 3 | 6 | ..... | ..... |
| Scott | 2.25 | 10 | 6 | 4 | 5 | 5 | 5 | 6 | 1 | ..... |
| Washington | 2.00 | 24 | 14 | 10 | 3 | 6 | 1 | 0 | 0 | 1 |
| Total ..... | ..... | 238 | 143 | 75 | 46 | 62 | 27 | 30 | 13 | 8 |
| FOURTH DIST.— | | | | | | | | | | |
| Decatur | \$3.25 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Bartholomew | 2.75 | 50 | 25 | 25 | 9 | 12 | 9 | 6 | 8 | 1 |
| Jackson | 3.00 | 44 | 28 | ..... | 6 | 8 | 1 | 1 | 6 | ..... |
| Jennings | 3.00 | 18 | 17 | 1 | 7 | 7 | 0 | 12 | 14 | 7 |
| Jefferson | 2.50 | 27 | 18 | 3 | 14 | 7 | 5 | 15 | 3 | 2 |
| Ripley | 3.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Dearborn | 3.25 | 31 | 23 | 27 | 8 | 12 | 6 | ..... | 3 | ..... |
| Switzerland | 2.00 | 12 | 8 | 3 | 1 | ..... | ..... | ..... | 2 | ..... |
| Total ..... | ..... | 182 | 119 | 59 | 45 | 46 | 21 | 34 | 36 | 10 |
| FIFTH DIST.— | | | | | | | | | | |
| Vigo | \$5.00 | ..... | ..... | ..... | 36 | 23 | 39 | 16 | ..... | ..... |
| Parke-Vermilion | 2.50 | 36 | 18 | 4 | 9 | 10 | 9 | 2 | 1 | ..... |
| Clay | 3.00 | 40 | 27 | 10 | 7 | 8 | 10 | 12 | 4 | ..... |
| Putnam | 2.50 | 29 | 22 | 11 | 5 | 14 | ..... | ..... | ..... | ..... |
| Total ..... | ..... | 105 | 67 | 25 | 57 | 55 | 58 | 30 | 5 | ..... |
| SIXTH DIST.— | | | | | | | | | | |
| Hancock | \$3.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Henry | 3.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Fayette | 2.50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Franklin | 2.50 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Rush | 2.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Union | 2.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Shelby | 2.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Wayne | 3.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Total ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| SEVENTH DIST.— | | | | | | | | | | |
| Hendricks | \$2.00 | 42 | 26 | 10 | 6 | 12 | 12 | 6 | 6 | 1 |
| Johnson | 2.50 | 42 | 11 | 29 | 12 | 8 | 10 | 0 | 11 | 1 |
| Marion | 5.00 | ..... | 283 | ..... | 39 | 54 | 51 | 40 | ..... | 1 |
| Morgan | 2.50 | 46 | 17 | 20 | 4 | 10 | 3 | 4 | 15 | 1 |
| Total ..... | ..... | 130 | 337 | 59 | 61 | 84 | 76 | 50 | 32 | 4 |
| EIGHTH DIST.— | | | | | | | | | | |
| Blackford | \$2.00 | 25 | 16 | 4 | 3 | 6 | 4 | 6 | 3 | ..... |
| Delaware | 2.50 | 100 | 48 | 20 | 10 | 18 | 8 | 7 | 28 | 10 |
| Jay | 3.00 | 33 | 23 | 8 | 12 | 8 | 12 | 6 | 9 | 1 |
| Madison | 3.00 | 150 | 51 | 30 | 10 | 17 | 14 | 10 | 41 | 2 |
| Randolph | 3.00 | 46 | 25 | 15 | 10 | 8 | 10 | 40 | ..... | 1 |
| Total ..... | ..... | 354 | 163 | 77 | 45 | 57 | 48 | 69 | 81 | 14 |

| | Society Dues. | Physicians in County. | Members of Co. Soc., 1912. | Eligible Non-Members. | No. of Meetings. | General Attendance. | No. Scientific Papers. | No. Case Reports. | Attendance District Soc. | Visits by Councilor. |
|--------------------------|---------------|-----------------------|----------------------------|-----------------------|------------------|---------------------|------------------------|-------------------|--------------------------|----------------------|
| NINTH DIST.— | | | | | | | | | | |
| Fountain-Warren .. | \$2.10 | 48 | 35 | 10 | 4 | 12 | 5 | 9 | 3 | 1 |
| Tippecanoe | 3.00 | 71 | 51 | 9 | 18 | 14 | 11 | 30 | ..... | ..... |
| Montgomery | 2.50 | 66 | 30 | 29 | 10 | 13 | 7 | ..... | ..... | 1 |
| Clinton | 3.10 | 65 | 19 | 20 | 14 | 10 | 14 | 21 | ..... | 1 |
| Boone | 3.00 | 44 | 11 | 25 | 12 | 6 | 15 | 5 | ..... | 10 |
| Hamilton | 2.60 | 55 | 24 | 22 | 9 | 10 | 9 | ..... | ..... | 1 |
| Howard | 3.00 | 45 | 28 | 4 | 12 | 10 | 8 | 10 | 12 | ..... |
| Tipton | 2.50 | 28 | 14 | 7 | 4 | 8 | 3 | 2 | 10 | 1 |
| Total..... | | 422 | 212 | 126 | 83 | 83 | 72 | 70 | 51 | 15 |
| TENTH DIST.— | | | | | | | | | | |
| Lake | \$3.00 | 118 | 81 | 24 | 9 | 17 | 9 | 9 | 25 | 1 |
| Porter | 3.00 | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... | ..... |
| Jasper | 3.00 | 11 | 9 | 0 | 5 | 6 | 2 | 0 | 2 | ..... |
| LaPorte | 4.00 | 60 | 44 | 11 | 10 | 10 | 30 | 8 | ..... | 9 |
| Total..... | | 189 | 134 | 35 | 24 | 33 | 41 | 17 | 27 | 10 |
| ELEVENTH DIST.— | | | | | | | | | | |
| White | \$2.00 | 33 | 11 | 20 | 0 | 0 | 0 | 0 | 0 | ..... |
| Carroll | 3.00 | 41 | 37 | 3 | 10 | 14 | 16 | 2 | 5 | ..... |
| Cass | 3.00 | 55 | 46 | 3 | 39 | 11 | 78 | 33 | 8 | 1 |
| Miami | 3.00 | 60 | 28 | 13 | 10 | 11 | 14 | 8 | ..... | 1 |
| Wabash | 2.00 | 45 | 17 | 15 | 2 | 6 | 4 | 3 | 6 | 1 |
| Grant | 4.00 | 94 | 45 | 10 | 12 | 20 | 10 | 20 | ..... | ..... |
| Huntington | 2.00 | 45 | 38 | 8 | 11 | 13 | 14 | 3 | 50 | 1 |
| Total..... | | 373 | 222 | 72 | 84 | 75 | 136 | 69 | 69 | 4 |
| TWELFTH DIST.— | | | | | | | | | | |
| LaGrange | \$2.00 | 21 | 13 | 6 | 9 | ..... | 27 | ..... | 4 | 2 |
| Noble | 2.00 | 31 | 29 | 1 | 4 | 18 | 11 | 3 | ..... | 3 |
| Whitley | 3.00 | 25 | 18 | ..... | 8 | 11 | 8 | 5 | 5 | ..... |
| Wells | 4.00 | 30 | 26 | 4 | 16 | 11 | 12 | 33 | 6 | ..... |
| Adams | 2.25 | 28 | 20 | 2 | 11 | 8 | 12 | 16 | 5 | ..... |
| Allen | 5.00 | 156 | 96 | 10 | 48 | 20 | 38 | 44 | 60 | 20 |
| De Kalb | 2.50 | 33 | 15 | 15 | 4 | 6 | 4 | ..... | ..... | 2 |
| Steuben | 2.50 | 29 | 16 | 10 | 12 | 8 | 15 | 25 | 6 | 1 |
| Total..... | | 353 | 233 | 48 | 112 | 82 | 127 | 130 | 86 | 38 |
| THIRTEENTH DIST.— | | | | | | | | | | |
| St. Joseph | \$6.00 | 110 | 63 | 32 | 33 | 17 | 41 | 30 | 20 | ..... |
| Pulaski | 2.00 | 21 | 3 | 14 | 2 | 8 | 2 | 2 | 2 | ..... |
| Fulton | 2.00 | 26 | 14 | 14 | 12 | 10 | 12 | ..... | 3 | ..... |
| Marshall | 3.00 | 40 | 21 | 10 | 9 | 10 | 18 | 10 | 6 | ..... |
| Elkhart | 5.00 | 70 | 60 | 3 | 9 | 25 | 21 | 6 | 12 | ..... |
| Kosciusko | 4.00 | 46 | 27 | 9 | 10 | 11 | 5 | 28 | 14 | 8 |
| Total..... | | 313 | 188 | 82 | 75 | 81 | 99 | 76 | 57 | 8 |

inducing members to pay up earlier in the year than has been their wont.

It was the ambition of President Kimberlin to organize the remaining six counties in the state, and thus far there have been three of the six placed on the roster, namely, Stake, Pulaski and Vermilion. The latter is joined with the Parke County Society and will be known as the Parke-Vermilion Society, organized Sept. 2, 1913.

This gives us an organization in 89 out of the 92 counties leaving Newton, Brown and Ohio counties to be affiliated before the close of the year.

I have kept a record of the individual county memberships beginning with 1910, and the following counties have for this year boosted their membership to the highest point in the four years: namely, Fountain-Warren, Floyd, Decatur, Daviess, Blackford, Benton, Delaware, Jasper, Jefferson, Lake, LaPorte, Marshall, Martin, Montgomery, Orange, Parke, Porter, St. Joseph, Sullivan, Wayne and Wells. The striking fact is that while our membership has been increasing, the gains are not from the four largest counties. In fact, each of these four shows a decrease over last year. In extenuation it may be said that the actual time and labor involved in collecting dues from large numbers of doctors is enormous, and these larger coun-

ties should employ a paid collector to get in the dues. I am satisfied that in the larger societies we have a considerable number of delinquents simply because it is impossible for the secretary to call on each member often enough.

I have submitted herewith the tabulated report of the councilor districts. If your county is not represented, it is because your councilor or secretary has failed to heed the repeated requests that have been sent out for the past nine months for these reports. The report covers a number of items, but the only one that can be checked up at this office is the membership for 1912. Out of 66 counties reporting, only 26 county secretaries had kept an accurate account of their membership. Twenty-two reported more members than they had, and eighteen reported fewer members. If such glaring inaccuracies occur in one column where they can be discovered, how much credence could you give the remaining report? The county secretaries have no excuse for not preserving a permanent record of the number of members they have each year, as that is one reason for the use of the permanent stub in the triplicate receipt book. Again, the councilors should be the clearing house for these reports, and they should know enough about their own districts to rectify mistakes and supply omissions. There is one

encouraging feature and that is an increase in the total number of councilor visits. A comparison between this report and the one published in last September's JOURNAL would prove interesting, as it would show what councilors are visiting their county societies and what ones are neglecting to attend to the duties pertaining to their office.

A peculiar situation has existed in Hancock County since the first of the year, and the fact that it has resisted all efforts of your secretary to straighten it out for so many months prompts me to make it a matter of public record in order that the House of Delegates may provide for specific reference for such a situation in the By-Laws. Last year Hancock County had 22 members, this year it has 5. A number of the remaining 17 have reported that they paid their dues to the county secretary, but he has failed to send the state dues to me. In view of the fact that our receipt promises that the physician is entitled to medical defense as soon as he pays his county dues, how can the State Association establish the status of a member when its local agent, the county secretary, does not forward the money paid him by the member? The legal question involved points to the need of an attorney for the State Association as well as for its medical defense committee, and such a one should be provided for the coming year.

The last printing of the Constitution and By-Laws was in January, 1911. Since that time the Constitution has been amended and the By-Laws have been amended, including one entire chapter of 16 sections on the medical defense feature. There have also been passed several rules which form important additions to the By-Laws. The secretary has one copy with all of these corrections made, but when members ask for the Constitution and By-Laws they receive the old edition. If any new rules are added at this coming meeting, it surely would be time to have a new printing for the guidance of the county secretaries.

The complete and detailed statistical report for the fiscal year of 1913 will appear in the January JOURNAL.

CHARLES N. COMBS, Secretary.

REPORT OF TREASURER

David M. Stevenson, Treasurer, in account with the Indiana State Medical Society.

CONDENSED REPORT

DEBIT

| | |
|---|------------|
| To cash on hand after payment of all outstanding bills for 1912 as shown in Journal, Feb. 15, 1913..... | \$2,421.64 |
| To cash on hand for Medical Defense Fund.. | 1,868.25 |

CREDIT

| | |
|--|------------|
| To cash on hand from Secretary, dues collected from 2,462 members..... | 4,924.00 |
| | \$9,213.89 |
| By cash to printers..... | \$ 160.85 |
| By cash to THE JOURNAL..... | 1,846.50 |
| By cash to the Medical Defense Fund..... | 3,714.75 |
| | \$5,722.10 |
| To balance on hand..... | 3,491.79 |

Grand total\$9,213.89

Respectfully submitted Sept. 1, 1913.

DAVID W. STEVENSON.

COMMITTEE ON SCIENTIFIC WORK

House of Delegates, Indiana State Medical Association.

Gentlemen:—The committee on scientific work of the Indiana State Medical Association for the West Baden session has classified the material under two headings:

I. PROGRAM OF PAPERS AND DISCUSSIONS

The range of subjects presented it seems to us covers the live questions of the day and will appeal to practitioners in general medicine as well as the specialties.

From a perusal of the program, presented elsewhere in detail, it will be observed that the number of papers is not so great as usual. This was designedly determined on by the committee in order to permit a larger opportunity for discussion. This action was prompted by the criticism often heard in the past that the great number of papers made it necessary to rush them in the reading without allowing sufficient time for debate on controversial matters. Acknowledging the justice of this complaint, we desire at the same time to impress on the membership that it will be most unfortunate if the opportunity for full and free discussion is not taken advantage of in the proper way. By this we mean to say that no one should discuss a paper, formally or informally, without having given serious thought to the topic under consideration. He should be so full of the subject that in the few minutes allowed he may say something worth while, and say it in a lucid and forceful manner.

It should be borne in mind that the discussions are now published in THE JOURNAL of the Association and are thus given wide publicity. Hence it is quite desirable that the subject matter and manner of presentation should be creditable. This much is due THE JOURNAL and the profession, not to mention the credit which will be reflected on the discussant. The right sort of a discussant has an opportunity to present a phase of a topic in a way that may exercise a wider influence than the paper read. In the judgment of the program committee, the discussants have just as important a part to play as the readers of papers, and they are therefore exhorted to treat the matter seriously.

II. SCIENTIFIC EXHIBITS AND DEMONSTRATIONS

Considering that some fifteen years ago this association fathered the scientific exhibit idea and later introduced the same feature to permanent usefulness in the American Medical Association, it seems rather remarkable that for several years past we should have had no scientific exhibit. On the other hand, other state associations, following our early lead, have instituted them and had them regularly. It is refreshing to find a revival of the work for this session, largely the result of the action at the last annual session, when an appropriation was made for the purpose.

It is a matter of extreme satisfaction to the committee to be able to announce that there will be three exhibits presenting very unusual features, as follows:

1. Exhibit Showing the Cultivation of Malarial Plasmodia in Vitro, by Dr. C. C. Bass of New Orleans.

This is the research exhibit to which the gold medal was awarded at the Minneapolis session of the American Medical Association. Besides the microscopic specimens, Dr. Bass will make lantern presentations covering the same field.

2. Hook-Worm Exhibit. Lillian H. South, bacteriologist Kentucky State Board of Health.

This is the very striking exhibit which was presented at the last meeting of the A. M. A. under the supervision of the Indiana State Board of Health. Dr. South will make examinations of many fecal samples collected from suspected anemic subjects in the southern part of Indiana, where she asserts hookworm is to be found.

3. Exhibit Showing Bright's Disease of the Kidneys with Associated Vascular Changes. H. R. Alburger, Indianapolis.

This will consist of a carefully selected series of gross specimens, microscopic sections, drawings and lantern-slide enlargements, all from the same specimens.

FRANK B. WYNN, Chairman.

CHARLES N. COMES.

J. C. SEXTON.

REPORT OF THE COMMITTEE ON CONSERVATION OF VISION

House of Delegates, Indiana State Medical Association.

Gentlemen:—On January 8, three months after the meeting of the Indiana State Medical Association, the chairman of this committee was invited by our worthy

Board of Health. He too did all in his power to secure its passage.

That the roller towel should be banished from the habitation of men is evidenced by the fact that the chairman and Dr. A. E. Bulson, Jr., have seen one boy with trachoma inoculate over two hundred children through the medium of two roller towels. It required over two years to repair the damage done these youthful eyes. Numerous instances like this are on record. The use of the roller towel must be prohibited. So let us address ourselves to the task of securing again such action as was secured at the meeting of the last general assembly. In the meantime let us do all within our power to educate the public in this regard.

THE BABY BOOK

The last general assembly voted an appropriation of \$2,500 for the purpose of publishing a book of advice to mothers concerning the new baby. The little book will contain a chapter relative to the care of the baby's eyes at birth and afterward; at birth to prevent ophthalmia neonatorum and afterward against the dangers of eye-strain. Thus it will be hoped to prevent the dangers of myopia which is increasing with the demands made on our eyes. Myopia is truly a disease, and is due to a stretching of the coats of the eyeball.

A PURE REFINED SPIRIT
FOR DOMESTIC USE—
AND A PERFECT SUBSTITUTE
FOR GRAIN ALCOHOL
—SAFE FOR ALL—
EXTERNAL PURPOSES.

Columbian Spirits

ODORLESS

MANUFACTURED BY
THE STANDARD CHEMICAL CO.
OF TORONTO, LIMITED.

TORONTO. MUST NOT BE TAKEN INTERNALLY. MONTREAL.

STANDARD WOOD SPIRITS

FOR BATHING BURNING & CLEANING

For Sponging and Bathing the Sick.
Making Liniments.
Rubbing for Rheumatism, Bed Sores, etc.
Veterinary uses where Alcohol is required.
Turkish Bath Cabinets.
Thawing out frozen gas pipes, and a great variety of manufacturing and household purposes.

Cutting all kind of gums
Jewellers' uses, Cleaning
Watchcases, Diamonds
Electrical Works.
Excellent Embelishing Fluid.
Burning under Chafing Dishes and in Spirit Lamps.
Oiling off Plaster and Furniture, Cleaning Windows and Brass.
Removing Dirt & Grease from Woodwork.

TRADE MARK

MANUFACTURED BY THE
STANDARD CHEMICAL CO.
TORONTO.

MUST NOT BE TAKEN INTERNALLY.

president to assume the duties and obligations incident to the chairmanship. After due reflection he accepted the task, and was then informed that three others had been appointed to act with him.

On January 24 he sent letters to each committeeman inviting suggestions and cooperation. No reply was received to these letters. Again on March 24 a similar letter was addressed to each committeeman and in thirty days replies were received from Drs. Hadley and Terrell. In the interim the great flood with all its harrowing distractions occurred. It was impossible for some time to gain attention for our work.

After time of the appointment of the chairman the general assembly was in session and unaided he addressed himself to the effort of securing such legislation along the line of the conservation of vision as was before it, the principal bill being the

"ROLLER TOWEL BILL."

The purpose of this bill was to prohibit the use of roller towels in public places. The bill passed both houses of the general assembly. Then it was vetoed by the governor. The bill was really the creation of Dr. J. N. Hurty, the efficient secretary of the State

WOOD ALCOHOL

Just two years ago at Whitestown, this state, five men purchased 1 gallon of wood alcohol and 3 gallons of grain alcohol, and mixed them. They all drank freely of the mixture. All were stricken with the symptoms of wood alcohol poisoning, nausea, vomiting, weak pulse, cyanosis, heauache, clammy sweats and convulsions. All became blind, and from this condition four died. The one who survived remained blind. Especially during the last twenty years, numerous like instances have been reported. About 1890 it was learned how to deodorize wood alcohol and thus remove its nauseous taste and smell. Since that time wood alcohol has been sold under various fanciful names which conceal its real identity and dangers. Hence we have on the market: "Columbian Spirits," "Colonial Spirits," "Cologne Spirits," "Union Spirits," "Eagle Spirits"; all the names are proprietary names for the one and the same thing, wood alcohol. Hence it is possible to purchase wood alcohol without really knowing what is bought.

Copies of some of the labels used on the containers of wood alcohol thus sold accompany this report. It will be noted in each instance that on cursory

examination one will miss the fine caution line at the bottom of each label. The manufacturer and the druggist selling wood alcohol, no matter under what fanciful name should be required to attach to the container, a label printed red, something after this fashion:

"This is wood alcohol

Dangerous for internal use.

If taken internally will produce blindness and may be death."

Its use should be prohibited in shellacs and varnishes. Many more cases of wood alcohol blindness are traceable to using varnish (made up with wood alcohol) in closed places as in the shellacking of beer vats.

The remedy for this state of affairs is to compel the use of denatured grain alcohol. This is nearly twice as cheap as wood alcohol. It is said that it may even be drunk with impunity. It should be the duty of every physician to interview the druggists in his city to the end that wood alcohol be withdrawn from the market and in its place be sold the less dangerous denatured grain alcohol.

For over fifty years Germany and Great Britain have used millions of gallons of denatured grain alcohol, and not a case of blindness has been attributed to its ingestion.

lighting of factories. Furthermore it should be its duty to see that all machinery be properly protected. Herewith are submitted some pictures to show what may be accomplished in this line.

These are the days of the

"SAFETY FIRST"

movement in railway and traction operation. It is recognized that the great bulk of accidents are preventable and hence corporations and their employees are banded together in spirit of cooperation for their prevention. To this movement we ought to commit ourselves.

In all the years that the shops of the Monon Railway have been located at La Fayette, but once has it been found necessary to enucleate an eye, irreparably damaged—a tribute to the value of guarded machinery and care in handling it.

SCHOOL INSPECTION

Rigid inspection of the eyes and ears of schoolchildren is absolutely necessary not only for the benefit of the child but also for the benefit of the other children, for a backward child in a schoolroom interrupts the progress of the other children. The interests of the teachers are not to be forgotten either, for she or



The skylights all face north. The roof is of saw-toothed variety. There are no dark corners in this factory and the finest scale can be read anywhere under ordinary daylight.

FACTORY ACCIDENTS

Occasionally are seen eyes injured because machinery was left unprotected. In every instance it was found to be an easy matter to put guards on the offending machinery.

Your chairman has attempted to get in touch with the State Bureau of Inspection relative to the prevention of such accidents. Mr. J. J. Walsh, factory inspector, under date of January 23, writes among other things as follows: "We have not had many serious accidents along this line for some time, and I have only one case in mind where the eyesight was destroyed and that was in a case that occurred several months ago where the end of a piece of wire penetrated the eye. Mr. Walsh expressed himself glad to receive any help that we may be able to give him.

Since the receipt of his letter the chairman has seen another accident in which the sight of one eye was seriously impaired because a circular saw was left unguarded.

Here again the medical profession may be of great service in using its influence for guarded machinery. Thus will we be conserving the eyesight of those who need it most.

The State Bureau of Inspection should be required to pass on the plans of factories about to be erected so that proper lighting, both natural and artificial, be secured. Many accidents are due to the imperfect

he can teach all better if none are backward. How often are we seeing children advanced in years compelled to do work with children several years their junior because of an unrecognized hyperopia or astigmatism or an adenoid in the vault of the pharynx, the latter causing deafness and aprosexia, besides otherwise damaging the physical organism of the growing child. Let us digress to say that deafness in a child is almost invariably due to the presence of an adenoid in the child's pharyngeal vault. These children are laggards because they cannot help it.

The method of inspection that now obtains falls far short of accomplishing what it ought to accomplish. The inspection should be in the hands of physicians who know how to examine the eye, ear, nose and throat and not the so-called school nurse illy prepared to conduct such examinations.

As a physician is necessary to remove the disability caused by an adenoid mass in the vault of a child's pharynx, so is he necessary to the removal of the disability caused by deformities of the eyeball, otherwise known as errors of refraction. The use of "drops" in the eyes is a prime necessity if errors of refraction are to be detected, measured and corrected properly. Wonders can be thus wrought. The attention of our profession is directed to an article in *The Journal of the American Medical Association* for April 5, by Dr. George M. Gould, on

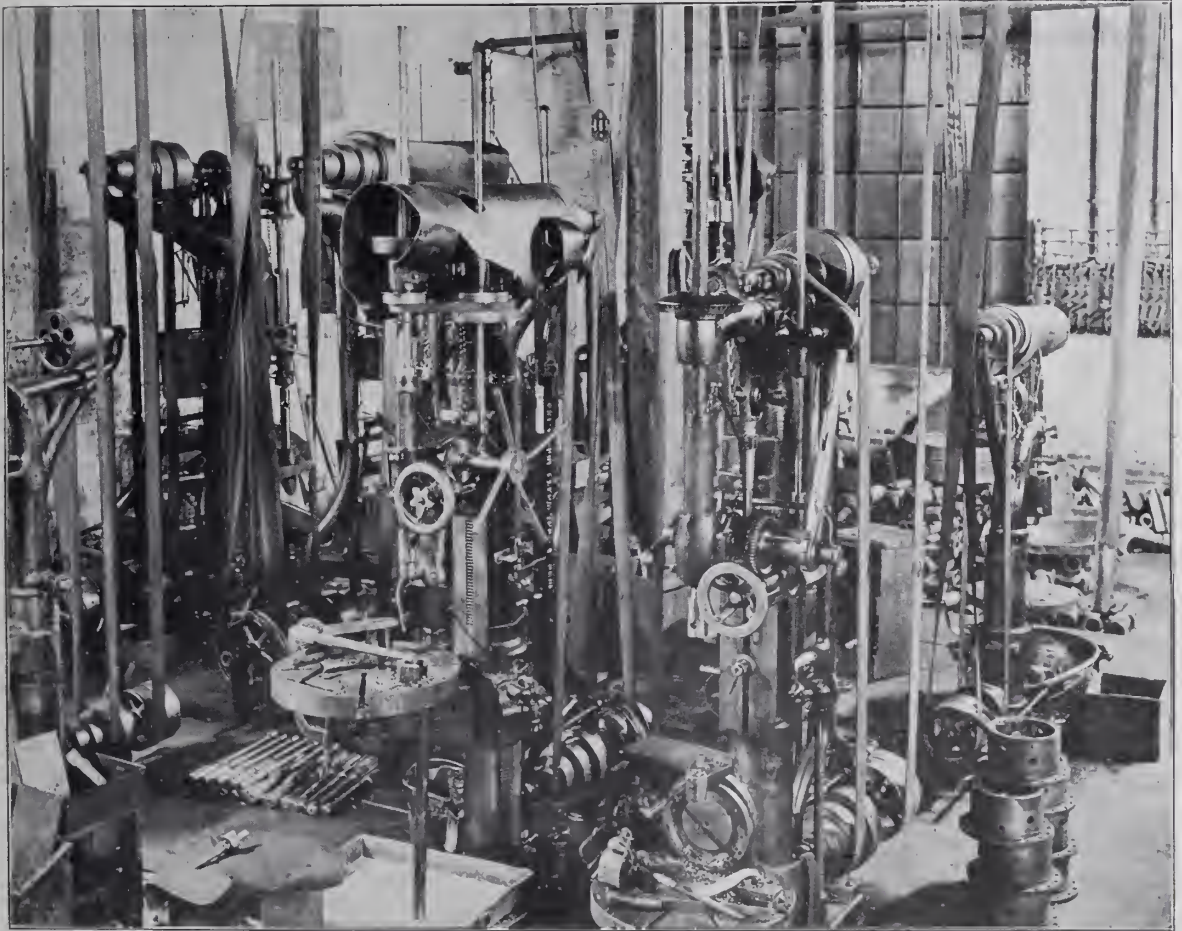
"SAVING THE BACKWARD SCHOOLCHILD"

The basis of the article and its inspiration are a report by Dr. William Martin Richards, oculist for the school commissioners of New York City, who by the proper fitting of glasses to the eyes of children defective in vision and schoolwork, produced results that seem little short of marvelous. But let it be emphatically noted that this work was done with the aid of "drops" in their eyes, and not in the inefficient manner of those who fit them otherwise.

Having obtained Dr. Richards manuscript we quote from it direct: "A most remarkable case is that of a boy who had a temper that was maniacal. It was absolutely impossible to do anything with him, once he

non-use of medicine in the children's eyes when making the examination, so that in the far-sighted children, who form 84 per cent. of the above defectives, the visual errors could not be detected." "Fourth, the ignoring of the small errors of refraction, which as shown above, had such enormous influence on the effort, proficiency and conduct of the above children."

We wish that we were able to reproduce the whole article but space will not permit. It is a sad commentary on a large portion of our profession that it will not send a case of error of refraction to a brother practitioner, the oculist, for correction, but to some one who is not qualified by the training of a physician to use drops as above.



This photograph was taken after night under illumination from the mercury vapor lamps used in the illumination of this factory. Note how distinct everything appears. The finest scale used can be easily read. A type of splendid artificial illumination.

was aroused. He became tense, screamed, bit, kicked, and these attacks sometimes lasted an hour. These awful outbursts occurred every two or three days. He was a source of annoyance to his classmates and in his lessons did practically nothing. At present the boy is gentlemanly, popular with his schoolmates, respectful to his teachers; he shows no indication of temper. He is doing 5A work and his teacher's comment in speaking of him was "excellent in every respect."

Further in his report he makes the following excellent observations as to the causes at work: "Third, the

Not only is inspection needed of the eyes of schoolchildren but it is needed as to their books. This phase of the subject has been very forcibly brought to our attention by a publication of the British Association for the Advancement of Science entitled:

"SCHOOLBOOKS THAT RUIN EYESIGHT"

We are attempting to procure some copies of the pamphlet for distribution to those who ought to be interested in this phase of this subject.

We quote from a review of the article by the *Literary Digest* of February 22: "The conclusion of the

committee is that there is a serious amount of visual defect among schoolchildren and that some of it is due to their books. It recommends the establishment of a standard of book production and the prohibition or boycotting of books that are below standard, so that sight-destroying print shall no longer be used."

"Small print leads the young scholar to look too closely at his book. He is not yet familiar with the forms of the words, and his eyesight has not yet reached its full acuteness. For easy vision he must have retinal images larger than those which satisfy the trained reader."

This type is for children under 7 years

This type to be read by children from 7 to 8 years old

This type is suitable for books to be read by children from 8 to 9 years of age

This type is the smallest suitable for books intended for readers from 9 to 12 years of age

This type is suitable in size for books intended for practised readers over 12 years old

"Among the specific recommendations of the committee are that the paper should be unglazed, but hard, smooth and opaque, and preferable white or cream colored; that elaborate and complex pictures be avoided; that the ink should be black; that the type should be hand set, and never in double columns; and that the type face should be clean cut and well defined, with little less contrast between the finer and heavier strokes." The type suited for different ages is here reproduced.

OPHTHALMIA NEONATORUM

It is to be feared that our law for the prevention of ophthalmia neonatorum is not receiving the support due from the medical profession. Investigations show that as many cases occur in the practices of our doctors as in the practices of midwives, proportionately. The physician is as much to blame as is the midwife. It is true that in one or two instances untoward results followed the instillation in the new-born baby's eyes, of the 1 per cent. solution of nitrate of silver. The solutions were prepared by a reputable pharmaceutical house and were dispensed in ampoules. Every

physician should prepare his own solution and test it with litmus paper to insure a neutral solution.

GOLF BALLS

Since the advent of golf, which has become a very popular sport, numerous cases are reported wherein the eyesight of curious people has either been destroyed or seriously impaired by attempts at dissection of golf balls. It appears that the core of a golf ball is a rubber bag in which is enclosed either a liquid or a paste under great pressure. The liquid is either hydrochloric or sulphuric acid. The paste may be either caustic soda, soap, barium sulphate, zinc chlorid or zinc sulphate. When the ball is dissected it explodes with great force, and of course the caustic is thrown in all directions and often into the eyes of the unfortunate curious folk around. In every country club should be posted notices warning people of the dangers that lurk in golf balls when tampered with thus.

To the credit of the United States Golf Association, be it said, that it has sent such notices of warning to all golf clubs.

In the Massachusetts legislature Senator Fry has introduced a bill forbidding the manufacture of such balls in that state. It may be wise for us to secure the enactment of a similar law in the legislature of 1915 in this state.

MINERS' NYSTAGMUS

While very frequent abroad, especially in the coal pits of England and Wales, miners' nystagmus is infrequent in this state, judging from the meager correspondence in possession of the committee. This is a matter for congratulation. Yet as a profession we ought to be vigilant for new cases. It is possible that those who read this report may be able to furnish the committee with case reports on this subject. Such are solicited. At present we possess no such records.

THE AIR GUN

Of all the abominations, the air gun and its close relative, the spring gun, easily take the first prizes. The eyes that they have ruined are worth infinitely more than all such guns ever manufactured. The manufacture and sale of toy guns should be strictly forbidden. They have no place in the hands of children in this day and generation.

THE COMMITTEE ON THE CONSERVATION OF VISION OF THE A. M. A.

The last session of the American Medical Association at Minneapolis created a committee as above. The committee of the Indiana Medical Association should heartily cooperate with it.

EDUCATION

The people are willing to receive instruction on the various phases of this important subject.

Nothing tells so much in so little time as a picture illustrating the subject in hand. The committee desires to display a series of lantern-slides, which the chairman has used on several occasions when lecturing on this subject. The slides were obtained from the Committee on the Prevention of Blindness of the state of New York. We recommend their purchase for use throughout the state. They can thus be at the disposal of any member of this state association who may wish to use them in lecturing before popular audiences on this subject. The chairman will be pleased to furnish a synopsis for such a lecture to any one who may wish thus to use them.

We have found the daily press willing to aid us, and it is now possible through the American Press Association to get matter into all the papers of the state served by it. To it we owe a vote of thanks for its generosity.

CONCLUSION

We cannot say that our work is done. It has just begun and in its future development we invite the hearty cooperation of every member of this Indiana State Medical Association, whose influence for good has always been potent. To the committee of next year we commit this task: The conservation of vision in the state of Indiana.

Respectfully submitted,

GEORGE F. KEIPER, Chairman,
JAMES W. HADLEY,
WALTER J. LEACH,
WILLIAM H. TERRELL.

REPORT OF COMMITTEE ON MEDICAL DEFENSE

House of Delegates, Indiana State Medical Association:

Gentlemen.—The Committee's annual statement, so far as it concerns the cases with which it has had to deal, is presented in the form of memoranda for the reason that it was not deemed necessary or advisable to present these somewhat private and personal matters in detail. For the same reason, initials are used instead of full names of the members involved. The committee desires to express its appreciation of the able and energetic manner in which its counsel, Mr. A. G. Cavins, has entered into the adjustment of the cases submitted to us.

CASES REFERRED TO COMMITTEE

Dr. C., of Evansville: Suit was threatened but not brought.

Dr. D., of Paragon: In this case an attorney has been provided for the defense, and nothing further has been asked of the committee.

Dr. G., of Mitchell: This case was dismissed without expense to the committee.

Dr. H., of Holton, was threatened with suit growing out of an insane commitment, occurring prior to Jan. 1, 1912. It was therefore impossible for this

committee to consider the matter of defense. Certain recommendations were, however, made by our attorney that may prove valuable to the doctor.

Dr. H., of Indianapolis: Case pending in Marion superior court. Our attorney has appeared in aid of the attorney personally employed by the defendant, and various steps in court procedure have been taken. This case is in shape to try, and will be fought out.

Dr. J., of Odell: Was sued in Tippecanoe County, the action growing out of services performed in 1909. As it lay outside the powers of the committee, this case had to be rejected.

Dr. L., of Marco: In this case the committee had proceeded so far as to negotiate with an attorney to act for the doctor, when it appeared that the case arose too early for defense out of the fund. Reluctantly the case was abandoned, explanations being made. The services having been rendered in 1911, no other course was left open.

Dr. M., of Fort Wayne, is being defended by this committee. The attorney employed was recommended highly, and the case is reported to be in good condition, and can be tried whenever desirable.

Dr. S., of Richmond, was sued together with Dr. M. The committee, as first constituted, employed Thomas J. Study, attorney, for Dr. S., Dr. M. being represented and defended by an insurance company. The defense seemed clear, but a jury returned a verdict against both defendants. An appeal has been prayed, and the money furnished on behalf of Dr. S., by this committee, to perfect the appeal. We expect to fight this case to the extreme limit of the powers conferred on us. One-half the expense is being borne by the insurance company, yet the committee has expended a large sum, quite close to the limit, in the matter.

Drs. P. and E., of Rushville, were sued on account of services performed prior to 1912, and therefore were not defended by this committee. They were, however, successful in their own defense.

Dr. W., of Newburgh, was threatened with suit, but has not notified us of any culmination of the threat requiring our attention.

Dr. W., of Evansville: This is a suit arising in a fracture case, and we are convinced, from an examination of the conditions on the ground by our counsel, that the case ought to be fought and won, and unless some unforeseen contingency happens there will be a contest made in this case. The medical fraternity at Evansville considers it an outrage that any such suit was begun, and that view is also held by this committee.

EQUIPMENT AND COUNSEL

After the date of employment of our general counsel, Mr. A. G. Cavins of Indianapolis, the committee formulated and provided certain blanks for application and defense and for the giving of information. These blanks are subject to revision and will be altered as conditions require or changes are naturally suggested. Distribution has been made of samples of the blanks to the secretary of each county or local medical society.

MEETINGS

The committee has held regular monthly meetings during 1913.

FINANCIAL STATEMENT

The chairman, under the resolution, was required to give a bond in the sum of three thousand dollars (\$3,000) and has done so, since which time there has

come into his hands from the association's treasurer, Dr. Stevenson, the following amounts:

| | |
|---------------------|------------|
| April 10, 1913..... | \$1,000.00 |
| April 22, 1913..... | 2,623.25 |
| May 7, 1913..... | 39.00 |
| June 10, 1913..... | 23.25 |
| July 5, 1913..... | 24.00 |

\$3,709.50

Expenditures

| | |
|--|------------|
| April 21—Leib, Hill and Co., Bond..... | \$ 10.00 |
| A. G. Cavins, Counsel, two months salary and one day court work in "H." case..... | 85.00 |
| Cleary and Bailey, Printing..... | 30.20 |
| May 3—Dr. George D. Kahlo, Investigating "S." case at Richmond..... | 25.00 |
| May 20—A. G. Cavins, April salary..... | 30.00 |
| May 22—Charles M. Niezer, preparation of "M." defense at Fort Wayne... | 50.00 |
| June 5—A. G. Cavins, May salary and expense one day in "W." case at Evansville | 63.95 |
| July 9—Dr. S. Richmond, expense of perfecting appeal | 155.00 |
| Thomas J. Study, one-half agreed fee in "S." case..... | 100.00 |
| A. G. Cavins, June salary..... | 30.00 |
| | \$ 579.15 |
| Balance in fund..... | \$3,130.35 |

The above report is complete up to July 20, 1913.

JOSEPH RILUS EASTMAN, Chairman,
A. C. KIMBERLIN,
ALBERT E. STERNE,
Committee on Medical Defense.

REPORT OF COMMITTEE ON MEDICAL EDUCATION

House of Delegates, Indiana State Medical Association:

Gentlemen.—Your committee is glad to report that it is highly in sympathy with the efficient efforts of the American Medical Association in raising the standard of medical education in the United States. Through its efforts commercialism in medical educational institutions will soon be a thing of the past. By raising the standard of medical education in the United States, it will but raise the standard of the medical profession. And the raising of the standard of the medical profession can but eliminate may of the practices that have proven so degrading, so demoralizing, so tinged with quackery that the standing of the medical profession with the laity in this country is at its lowest ebb.

The one remaining medical institution of this state, the Indiana University School of Medicine, is given rank with the greatest medical educational universities of this country, a fact that should cause very reputable medical man within the borders of this great state of Indiana to be justly proud and it should be the duty of every medical man within the state to put forth his every effort, not only to maintain its present high standard, but to make it the peer of all medical institutions. Our medical laws are perhaps the most progressive and efficient of any state medical laws. It is to us, the rank and file of the profession, to see to it that they are so maintained.

We feel that to the guardian of this state medical law, Dr. Wishard, is due much credit and that a vote of thanks tendered to him by this association now assembled would be a fitting evidence of our appreciation of his efforts.

To the State Board of Medical Registration and Examination falls the responsibility of maintaining the high standard of the profession of the state. One weak, dishonest member can so disorganize this board, so hinder it in its efforts to raise the standard of the profession that the profession as a whole must suffer. We believe it to be the duty of those having the authority to appoint members to this board to look carefully to the merits of each applicant and to appoint those of a high moral and educational standard, rather than for political purposes only.

While the educational advantages, medical and otherwise, have been progressing very satisfactorily, still the fact remains that there are too many of the state's wage-earners sick and dying from preventable disease. We believe this to be due not only to a lack of education on the part of the laity, but in no small degree to the lack of a properly educated and properly trained medical profession. As a means of correcting this deplorable condition, we suggest that the Committee on Medical Legislation be instructed to prepare and submit a measure to be enacted into a law giving the Indiana University School of Medicine the power to carry on a system of health education to the public, and to provide a suitable appropriation for same. We further suggest that part of this work could be with advantage worked in as a part of the senior year curriculum, thus serving the double purpose of educating the public along health lines, as well as better fitting the future profession to meet the demands of preventive medicine.

Respectfully submitted,

H. H. MARTIN.
PAUL J. BARCUS.
L. PARK DRAYER.

REPORT OF COMMITTEE ON STATE MEDICINE

House of Delegates, Indiana State Medical Association.

Gentlemen:—Preventive medicine has no remarkable discoveries to record as occurring in the last year, but marked advancement has been made in the practical application of past discoveries. For instance, it has more and more plainly appeared to business men that disease prevention is a matter of no small importance to business, and in consequence the work is now interesting business men, and business organizations are encouraging and helping on public health work.

Not less than ten of the strong life insurance companies have established departments which are for the purpose of looking after the health of policy holders. They were originally induced to take up this work through an address by Professor Irving Fisher, professor of political economy at Yale University. This address was delivered before the Association of Life Insurance Presidents in 1909. It most clearly showed that money was to be made through prolonging the lives of the insured, and it also showed that preventing disease and prolonging life was a matter of foremost importance to business interests and to the state. That this fact was not earlier recognized and practically applied is another proof that man moves forward slowly.

The Postal Life Insurance Company was probably the first to take up life-saving work through disease prevention; next the Metropolitan Life Insurance Company established a "welfare department," and it was followed by the Provident Savings Life Assurance Society, which opened a health bureau for its patrons and issued a health bulletin for free distribution. When the Metropolitan Insurance Company took up the work and tried to establish a sanatorium for the treatment of tuberculosis among its employees, it was prevented by legal obstacles which it was found very difficult to remove. But finally the sanatorium was built and put into operation, and being found effective, the next move of this company was to establish a district nurse service, by making arrangements with district nursing associations for visiting its industrial policy holders in specific cities. On this service the Metropolitan now finds it profitable to expend nearly a half a million a year. This company also issues a journal called *The Metropolitan*, devoted largely to matters of health.

The Association of Life Insurance Presidents has appointed a committee to cooperate with health-protecting agencies, and this committee, after studying the situation in a thorough business manner, concluded that the first step necessary to reduce disease and extend the duration of life was to secure correct vital statistics. And here is where the physician can lend first aid by first endeavoring to make more accurate diagnosis; second, by more accurately determining causes of death; and third, by promptly reporting births, diseases and deaths to the proper authorities. Obviously, this is a service due to patients, to the science of medicine and to society.

Periodical medical inspection.—The Postal Life Insurance Company has adopted, as one of the features of its work, the free medical examinations of policy holders, and the recent report of Dr. Fisk, the medical director, under whom this work has been done, indicates that the work pays handsomely. It would seem that this idea of a periodical medical examination, for the purpose of preventing sickness, would finally bring more profit and honor to medical practitioners than the present plan of waiting until sickness comes, then making the examination and trying to bring about cure. The report of Dr. Fisk shows the plan of periodical examination has been kindly received by the policy holders, many taking a pronounced interest in it.

To-day something like three-fourths of the policy holders of the life insurance companies in the United States are in companies that are doing something for the health of their policy holders.

It is the policy of all insurance companies that have adopted periodic medical examination of patrons, in case impairment is found, to turn the person over to his family physician, or such physician as he may himself designate. Thus, this free medical service of the companies brings to general practitioners better opportunities to be of permanent and abiding service to humanity. A notable writing on this subject by Henry W. Cook, M.D., will be found in *The Journal of the American Medical Association* for April 27, 1912. The article is entitled, "The Value of Periodic Physical Examination."

A life extension institute.—It has been proposed that a national organization might profitably be effected to which the name "National Life Extension Institute," could appropriately be given. Such institute would take hold of and promote preventive medicine and

hygiene along lines not now followed by such organizations as the American Public Health Association. The National Life Extension Institute would seek to practically apply to every-day life the discoveries and preventive methods recommended by the scientific or theoretical side of the question, yet constantly lending its cooperation and influence in favor of any methods or measures likely to better the public health.

State branches of the institute could hold meetings monthly, quarterly or at other stated intervals, in different cities or towns of the state, and practical work could be inspections as to the water-supply, disposal of garbage, sewers, disposal of sewage, inspection of dairies, of milk, meat markets, groceries, etc. The health ordinances and their enforcement in the places visited could be considered, also appropriations, efficiency of the local health department, protection from flies and other noxious insects, the condition of the public schools, hotels, restaurants, barber shops, public halls, churches, moving-picture shows, public drinking fountains, the roller towel, etc. One influence of the institute might be to stimulate medical schools to enable medical men to become better examiners and advisers on personal hygiene. At present practitioners are prepared for the business which they expect to do and they rarely or never expect to do preventive work more than to advise in regard to the dissemination of infection. As soon as preventive work becomes expected, or is demanded, medical schools will have to prepare for it.

When all is considered it is plain that life extension work of the character outlined would materially promote strength, efficiency and happiness.

Epidemic diseases.—Although it has been over half a century since Pasteur gave his great message that, "It is within the power of man to drive all infectious diseases from the earth," still they are with us. Their mortality is certainly decreasing, but their prevalence seems to be as great as in the past. Scarlet fever has prevailed in Indiana extensively in mild form during the last year, and, of course, its sequelae will be felt in the future. The number of cases cannot possibly be given, for only a small proportion were reported, and many went undiagnosed or without medical attention. The deaths numbered 99. Average for the last ten years, 246.

Diphtheria caused 490 deaths, but as with scarlet fever, the number of cases cannot be given, and as is true of that disease, diphtheria seems to be assuming a milder form. Antitoxin is the power which has reduced the diphtheria mortality.

No persistent or extensive outbreaks of diphtheria have occurred in Indiana during the last year; but, several epidemics which were not unattended with alarm, have been recorded. It is strange, yet true, that it still remains difficult in some localities to secure the cooperation of the public in the work of stopping epidemics. At Hartford City and other places too, actual opposition arose against the isolation of diphtheria-carriers.

Typhoid fever is decreasing.—The average annual mortality for the last ten years was 886. The mortality for 1912 was 637. As is plain, the typhoid death roll is still large enough to prove that human excrement is continued somewhat in our dietary.

Pneumonia.—Deaths from pneumonia numbered 2,883. Average for the past ten years, 3,072. The same general conditions that favor the prevalence of tuber-

culosis favor the prevalence of pneumonia. With the practical working out of the Indiana Housing Law and a more universal appreciation of the value of fresh air and right living in the prevention of all respiratory disease, a further decrease in the mortality from pneumonia can be confidently predicted.

Tuberculosis is certainly decreasing, but very slowly. The average annual mortality for the last ten years was 4,481, while the mortality for 1912 reached 3,810. Doubtless the ceaseless agitation of its prevention is having its effect. If only better ventilation of bedrooms and schoolrooms could be secured, the tuberculosis decrease would be pronounced.

Small-pox.—Small-pox has become epidemic, for it has prevailed constantly every month in Indiana for the last twelve years. The type has always been mild and still remains so. The average yearly mortality is 37. In 1912 the small-pox deaths numbered 12. The long and persistent prevalence of the disease in mild form with astonishing low mortality, seems reason sufficient now to class it among the moderately dangerous infectious diseases, especially as it has no marked sequelae.

Poliomyelitis.—Mortality, 41. In 1911 mortality, 67. Prior to 1911 deaths from this cause were not reported separately. The wide-spread outbreak which prevailed in 1911 and to a less extent in 1912 seems to have passed while the actual means by which the disease is communicated from one to another remains a problem.

Rabies.—The number of brains containing negri bodies received at the bacteriological laboratory has shown a steady increase each year as follows:

| | |
|------------|-----|
| 1907 | 4 |
| 1908 | 73 |
| 1909 | 69 |
| 1910 | 66 |
| 1911 | 115 |
| 1912 | 145 |

The first patients were given the antirabic treatments by the state July 11, 1912. Number of cases treated since are as follows:

| | |
|---------------------------|------------|
| 1911 remainder of year... | 30 cases. |
| 1912 whole year..... | 89 cases. |
| 1913 to August 1..... | 120 cases. |

There seems to be considerable lack of information concerning the proper method of dealing with dogs having rabies or suspected of having rabies. If the following rules are observed there will be much less trouble:

1. If a dog is bitten by a dog known to have rabies, kill the dog.

4. In sending animals' heads to laboratory for ten days, if at the end of that time the dog is living and well, the person bitten is in no danger of developing rabies.

3. If child under 10 years is bitten on hands or face give that child antirabic treatment immediately.

4. In sending animals's heads to laboratory for examination, cut off head and pack in ice; don't attempt to take out brain.

The following table shows mortality from certain infectious diseases in Indiana as compared with the registration area of the United States:

DEATH-RATES PER 100,000 POPULATION FOR THE YEAR 1911

| | Registration Area | Indiana |
|---------------------------------------|-------------------|---------|
| Typhoid fever | 21.0 | 26.7 |
| Small-pox | 0.2 | 0.1 |
| Measles | 10.0 | 9.6 |
| Scarlet fever | 8.8 | 6.6 |
| Whooping-cough | 11.3 | 10.0 |
| Diphtheria and croup..... | 18.9 | 14.1 |
| Tuberculosis of lungs..... | 138.0 | 131.4 |
| Tuberculous meningitis | 8.8 | 7.9 |
| Other form of tuberculosis..... | 12.1 | 15.7 |
| Diarrhea and enteritis (under 2 yrs.) | 429 | ... |

From the above it will be noted that if the death-rate for Indiana had been the same as for the entire registration area the number of deaths would have shown an increase or decrease as follows:

| | Increase | Decrease |
|---------------------------------------|----------|----------|
| Small-pox | 2 | ... |
| Measles | 10 | ... |
| Scarlet fever | 59 | ... |
| Whooping-cough | 35 | ... |
| Diphtheria and croup..... | 129 | ... |
| Tuberculosis, pulmonary | 178 | ... |
| Tuberculosis, other forms..... | ... | 97 |
| Diarrhea and Enteritis (under 2 yrs.) | 429 | ... |
| Typhoid fever | ... | 153 |

This showing is gratifying except as to other forms of tuberculosis and typhoid fever. The higher mortality from typhoid is a state sin and disgrace and proves that Indiana still lives in "The Typhoid Age" and is guilty of gross sanitary negligence.

J. N. HURTY, Chairman,
W. M. MCGAUGHEY,
GRANVILLE REYNARD,
E. R. SISSON.

REPORT OF COMMITTEE ON TUBERCULOSIS

House of Delegates, Indiana State Medical Association.

Gentlemen:—Your committee on tuberculosis has some interesting, as well as useful, comments to make concerning the progress and status of tuberculosis in the state of Indiana.

We have been mindful of the fact that for years such a committee has been recommending and offering suggestions to this Association, which were intelligent, scientific and comprehensive, and we propose, as far as possible, to improve on these suggestions in so far as scientific advancement and observation will enable us.

We wish to call your attention to the fact that the settled rules concerning tuberculosis have been seriously disturbed by claims which were not founded on scientific facts and which have not and cannot be proven to be true. The great press of the world has taken on itself the propriety of promulgating a cure for tuberculosis which inflamed the tuberculous public to a frenzied pitch of expectation without any assurance from any scientific body that they were handling the truth.

This highly advertised German tuberculosis cure has done more damage and caused more unrest than scientific medicine can quiet in a year. We wish most positively to direct your attention to the fact that your committee has, and always did maintain a perfect, dignified and silent contempt for all of these press reports.

We did, however, have occasion to answer numerous inquiries and requests for this treatment which we always condemned.

Your committee feels that it is justified in placing itself on record as advising that we should not expect, nor can we hope for, a biological cure for tuberculosis and consumption with our present knowledge of biological chemistry and its limitations as a curative measure. We have reason, however, to surmise, at least hope for a chemotherapy which will in a measure eradicate this trouble.

Your committee has in a year been active in legislative bodies promulgating and attempting to have passed a law which would enable health authorities in the state to control, isolate and, if necessary, quarantine indigent advanced consumptives. We were not able, however, to have the bill passed as it was submitted, but we have a law in our state now which enables the county commissioner to establish a home in his county or in several counties adjoining where advanced consumptives may be cared for until they die. We, as a committee, feel proud of this accomplishment, and hope that future committees of this Association may obtain for us the ideal measure for which we fought.

We wish to call the attention of this scientific body again to the fact that prevention is the great work we have to do in the question of tuberculosis. We have made no great advances concerning the preventive measure in tuberculosis in the past decade. We have, however, been taking care of our incipient tuberculars and permitting the old chronic consumptives free rein to infect other innocent people; consequently, we are forced to the realization of the fact that our fight on the incipient cases is still on, with as many cases to fight as we had ten years ago.

This fight for the incipient case is good, but we should have had with it a compulsory preventive measure limiting the ability of advanced consumptives to infect their fellow men. This committee, therefore, urges that this body take up the fight of limiting the privileges of the careless consumptive, as we would the privileges of one suffering from small-pox or cholera.

In regard to curative measures your committee must confess its inability to offer anything new. We must still recommend the old treatment—rest, good food and fresh air. These may be supplemented by scientific ministrations of antigens and tonic drugs. We wish to condemn the general employment of all so-called cures for consumption. They are based on ignorance and empiricism.

Your committee wishes to call the attention of this Association to the noble work being done in this state by the Indiana Association for the Study and Prevention of Tuberculosis, which is supported almost entirely by sale of Red Cross Xmas seals. Their work is that of education and has done much in the year to bring the public to a proper understanding of the scientific position of medicine in its relation to the white plague. Your committee has had the pleasure of working with this organization harmoniously and satisfactorily and we wish to extend to it a vote of thanks.

Your committee also wish to call attention to the harmonious work being done in the state of Indiana in all of its charitable societies and clubs. Many instances have come to our notice of grand and good work being done by the Woman's Federation of Clubs of

this state, county and charity organizations, as well as religious societies.

We wish to close our report with the statement that the work in Indiana is well organized in all of the bodies which are interested in this fight. They are working for the following facts:

1. That prevention is the one great factor to be obtained.
2. That we should insist on proper education against tuberculosis.
3. That our Association should demand proper regulation of the careless consumptive.
4. That we encourage the establishment and maintenance of county homes for consumptives.
5. Your committee urges that this Association become more active in tuberculosis movements; that we perfect our diagnosis and take due cognizance of all progressive measures which may help us in disposing of this great white plague.

W. T. S. DODDS, Chairman,
H. C. HAMILTON,
W. A. GEKLER,
L. W. SMITH.

REPORT OF COMMITTEE ON MEDICAL RESEARCH AND POSTGRADUATE WORK

House of Delegates, Indiana State Medical Association:

Gentlemen.—The Indiana University School of Medicine offers facilities for post-graduate work to all postgraduates of medicine or others who desire to take courses without graduation. They are required to register as special students without preliminary examination and upon payment of the fees required. Since the session of 1909 and 1910, a fifth optional year has been added to the course, leading to the degree of M.D. *cum laude*, provided the year's work is satisfactory and the thesis which is required is also satisfactory. With the completion of the Long Hospital, it is expected that first-class, well-systematized postgraduate work will be offered.

The Long Hospital, when opened, will require three years' hospital service of its residents, and they will be expected to do some research work. During the past year considerable research work has been carried on in the medical school, but your committee has been unable to get a detailed report of the work. The authorities have agreed to give a special place in the museum for the Pathological Museum of the Indiana State Medical Association. This will insure a permanent place for the collection and at the same time a correct classification based on a thorough study of each specimen. We would like to urge the physicians of this association to send their pathologic specimens to the medical school. This will insure preservation of the specimens and the doctor will get a report on the laboratory findings. Your committee feel that after the present year the medical department of our university will be in a position to offer first-class facilities for postgraduate and research work and that those in charge will do all they can to stimulate men to take up this character of work.

Respectfully submitted,

MILES F. PORTER, Chairman,
R. C. SHANKLIN,
JEWETT V. REED,
Committee on Medical Research and
Post-Graduate Work.

REPORT OF COMMITTEE ON INEBRIETY

House of Delegates, Indiana State Medical Association:

Gentlemen.—The former reports of this committee have given the results and the methods of prevention and curative work in other states. We are, therefore, chiefly concerned in what has been accomplished in Indiana.

Senator Stotsenberg in the recent session of the legislature introduced a bill of exceptional merit to establish and maintain an inebriate hospital. Briefly its provisions were as follows:

Senate bill No. 172 provided for the purchase of 500 acres of land and the erection of suitable buildings for hospital purposes, for the appointment of a commission by the governor for such purchase and erection of buildings, for an appropriation of \$25,000 for the purchase of the land to become available Jan. 1, 1914, and \$75,000 for the erection of buildings to become available Oct. 1, 1915, for a permanent board of trustees and a superintendent after the work of the commission has been completed, that the term "inebriate" shall be construed to mean any person addicted to the excessive use of intoxicating liquors, cocaine, morphine or other drugs, and that upon the filing of an affidavit by a respectable citizen of the county that a person is an inebriate, that person shall be tried before the judge of the circuit or criminal court and upon conviction shall be detained for an indeterminate sentence of not less than three months nor more than two years. The judge shall have the right to suspend sentence for one year if he so desires. It also provided that the superintendent of such hospital shall, while such person is detained at such hospital, furnish such person with suitable occupation at a fair wage and a strict account of his labor shall be kept and credited to him and out of such wage shall be deducted five dollars per week for support and the balance shall be paid monthly to the dependent wife and children of said person, if any, if not, the same shall be kept to the credit of such person and be paid to him upon his final discharge.

To assist in the passage of this bill the chairman of this committee wrote (February 8) to the secretary of each county medical society in the state requesting that his society take some action endorsing this bill and that the senator and representative of the county in which each society is located be notified of its action. This letter was followed (February 12) by a second urgent request containing a synopsis of the bill (as it was impossible to obtain a sufficient number of complete copies in the time allowed.) No response came to most of these requests, and in very few exceptions no action was taken that was reported to the chairman of this committee.

Prior to the time when this bill was to come before the senate for action the chairman spent several days (at a time when a busy physician can ill afford to spare the time) in Indianapolis. While he was courteously received by the members of the senate, it was plainly evident after the first few hours that the bill would be defeated on the ground of economy, unless pressure could be brought to bear on the individual members by their constituents. To this end the letters were sent to the county medical societies. Since pressure was not forthcoming the bill failed to pass.

From this experience it is the conviction of the chairman of this committee that before much can be

accomplished along this line it is necessary for the medical profession and the laity in general to become interested in the study of inebriety, its causes, prevention and cure, and to disabuse the mind of the public in general and of the legislator in particular of the idea that every one who is interested in the study of inebriety is a "temperance crank."

This committee has to do with the rational prevention and cure of this condition. The treatment of inebriety may be divided into prophylactic and curative. The prophylactic treatment is again divided into the quarantine and immunizing measures.

The quarantine measures such as prohibition and restrictions on the sale of liquors are temporary and at best only makeshift, tending in the end to lower the resisting power of the members of the race.

Under the head of immunizing measures which tend to increase the resisting power of the individual members of the race are to be mentioned the proper training in the home and in the school and at this point the family physician is capable of exerting a most potent influence by both precept and example.

It is due to every child that he be taught the baneful influences of alcohol. In this connection it is well that the boys and girls be taught to be careful in the selection of wives and husbands and to see to it that there is no hereditary tendency in this direction.

Before much progress can be made in the cure of inebriety after the condition is once established it will be necessary that the state establish and maintain a hospital for the forcible treatment and isolation of inebriates where they may be compelled to remain until it is reasonable to suppose that they are capable of resisting the habit, and to which they may be returned should they fail to resist it.

Such a law and institution by the moral effect of its operation on the individual members of the communities from which the patients are sent will do more toward the prevention and cure of inebriety than all the prohibitive legislation which can be enacted, and at the same time will tend to strengthen rather than weaken the resisting power of the individual members of the race.

Respectfully submitted,

G. W. PULTE, M.D., Chairman.

A. L. WILSON, M. D.,

GEO. R. GREEN, M.D.

REPORT OF COMMITTEE ON PREVENTION OF VENEREAL DISEASES

To the House of Delegates of the Indiana State Medical Association:

Gentlemen:

The facts concerning the ravages of venereal diseases are too well known to the profession, although, unhappily, not sufficiently familiar to the general public. However, these facts have been presented in former reports and will not be repeated at this time. The factors representative to the spread of venereal diseases may be grouped under the following heads:

(1) Ignorance on the part of the contracting parties. No boy, girl, man or woman with a sound mind would willingly risk themselves to these dangers if they fully realized what they were doing. Instruction must be given to the youth at proper intervals, always begin-

ning at home with the father to the son and the mother to the daughter; always remembering, however, that education alone will never stop the spread of these diseases.

(2) Improper treatment of all forms of venereal diseases. This is not due perhaps so much to careless treatment by the physician as it is to the habit of self-medication and treatment recommended by wordy-wise drug clerks.

(3) The lawful and unlawful sale of intoxicating liquors is one of the main factors in the spread of venereal diseases. Your own experience with men, no doubt, will sustain the conclusion that a large per cent. of men with venereal diseases contract the same while under the influence of liquor. Prostitutes know that liquor aids them in their business, and many houses of prostitution are directly connected with saloons or blind tigers. The absolute prohibition of the sale of intoxicating liquors as a beverage in the state will be another step in the prevention of the spread of all forms of venereal diseases as well as other vices.

(4) Openly licensed or police-protected houses or prostitution in segregated districts give to the young men and boys a false impression of security. Such houses are more dangerous as a source of temptation to the young beginner because he knows that he can go there without danger of arrest. Such districts are usually placed where self-respecting people will not be seen and the boy knows this fact. He thinks such houses are medically inspected and that there is no danger of contracting diseases. You know such an inspection can only give a very slight degree of protection to the patrons of such houses. A girl might be very carefully examined by an expert physician to-day and pronounced free from disease and by to-morrow be the source of infection through intercourse with diseased men in the interval.

Those who oppose the prohibiting of licensed houses contend that if you do not have districts in which they are to be situated that these houses are scattered all through the residence districts. Perhaps this is true, but is it not also true that in cities having licensed houses these people are likewise housed in the best residence districts?

It is the same old cry of vice, "If you do not allow us to run under license, you will have blind tigers." Any one who will take the trouble to investigate will find that there are just as many blind tigers in wet towns as there are in dry towns, and that we have as many blind tiger houses of prostitution in towns and cities which license such houses as we do in the towns which prohibit such houses.

Open houses of prostitution, like open saloons, increase the temptations and lead more to fall victims to their vices. The reason we have licensed houses of prostitution is because of the income derived from the rentals. Again we see the analogy to the liquor traffic. It is the big fellow, the brewer and well-respected citizens who own and rent the property for saloons and other vice purposes, and not the heavily licensed and heavily taxed saloon keeper, or the girls who are heavily licensed and heavily fined by the police departments, who are reaping the gains from these vices.

If we had only to contend with the real vice element in this fight, it would be a very easy task, for

men of influence could in a short time simply put these vices out of business for good. Such men will not do so because they are themselves the real promoters. We have laws enough in this state to aid in saving thousands of men and women from the awful ravages of venereal diseases, if such laws were enforced.

(5) What is needed is a moral awakening of citizens who will vote to put real men in office, to enforce the laws, not to arrest and fine the unfortunate inmates of houses of prostitution, but prevent the unlawful gains derived from rental of such property.

We ask every member of the medical profession for his help in the prosecution of this program.

ERNEST L. MATTOX, M.D.

GEORGE G. GRAESSLE.

JAMES B. MAPLE.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

House of Delegates of the Indiana State Medical Association:

Gentlemen:—The legislature of 1913 enacted some helpful legislation in the interest of the medical profession and the public. A notable advance has been made in the control of the sale of habit-forming drugs by the passage of a law, known as the Keegan Bill. This law provides that it shall be unlawful for any one to retail, sell or give away any of the habit-forming drugs or any compound or preparation containing them or their derivatives except on the written prescription of a duly registered physician, dentist or veterinarian. The latter may not prescribe such drugs to be used by one habituated to their use and this law provides that every prescription must contain the name and address of the person for whom the drug has been prescribed and must bear the name of the physician prescribing the same, and the druggists filling such prescriptions are required to file them monthly with the State Board of Pharmacy. It is also provided "that nothing in this act shall be construed to prevent the legitimate administering of said drugs, their salts, compounds and derivatives by a duly registered practicing physician, duly licensed veterinarian or duly licensed dentist." This bill as passed eliminates some objectionable features contained in the original draft of the bill presented by the State Board of Pharmacy. As originally drawn it would have been illegal for physicians to administer habit-forming drugs to their patients in the legitimate discharge of their professional duties without first writing a prescription and having it filled by a duly licensed pharmacist. It was intimated to your committee while this bill was pending that one of its purposes was to enforce as far as possible the writing of prescriptions. Special credit is due to representative Geo. W. Sands, who led the opposition in the legislature to the objectionable features of this bill as originally introduced. It would in the judgment of your committee have been better to have placed the administration of this law in the hands of the State Board of Health which has the only organized executive machinery in the different counties of the state, with which to secure the enforcement of this law. However, it is believed that the present State Board of Pharmacy will use its utmost endeavor to make the law efficient.

Among the good bills passed is the Harlan Bill, providing for the establishment of county hospitals for

the care and treatment of persons suffering from tuberculosis, also the Thornton Bill, regulating the standard of purity and wholesomeness of the water supply of cities of the state and conveying certain authority to the State Board of Health for the enforcement of this law.

The "Housing Bill" which has long been championed by Mrs. Albion Fellows Bacon and others was passed by the recent legislature and is now a law. It provides for the proper sanitary construction and maintenance of tenant houses throughout the state and will doubtless prevent much sickness and save many lives besides contributing to the happiness of the poor.

Another bill was one to regulate the practice of dentistry, which was an amendment to the existing law; another was providing an amendment to the nurses' registration law; also the law to amend the statutes in such a way as to facilitate the collection of vital statistics. Also a law to amend the school-house law in regard to heating and ventilation of school buildings and placing the responsibility for compliance with the law on the architects as well as school trustees.

The legislature also passed a bill regulating the erecting of mausoleums which are to contain more than twenty (20) human bodies and requiring plans for same to be approved by the State Board of Health and also requiring the sanitary maintenance of such mausoleums.

A bill of great importance and one which commits the state of Indiana very fully to the financial support of medical education was the act which passed the last legislature giving \$65,000 to the Long Island and Indiana University School of Medicine for the first year and \$75,000 for the second year. This, although a modest sum, gives hope that the next legislature will greatly increase the amount and insure the adequate permanent support of a State Hospital in connection with a State Medical School.

Much of the time of your committee was occupied in efforts to defeat objectionable bills, chief among the latter was the Chiropractic Bill. Your committee desires to express its sincere thanks for the efficient aid given by the different county and district societies in opposing objectionable laws and supporting those that were worthy.

A bill was prepared by your committee during the latter part of the season with a view to stamping out as far as possible the evils of fee-splitting. It was drafted along the lines of the Wisconsin bill then pending before the legislature of that state. It was decided to defer its introduction until the next legislature and to permit a very full expression of opinion by the state, district, and county societies on this glaring evil.

Many medical organizations have recently adopted rules which make those guilty of fee-splitting ineligible for membership. It would seem proper for the House of Delegates to consider this question at this session. If this law is passed by the next legislature it should automatically cancel the license of any one found guilty of fee-splitting.

An amendment is also needed to the law on the practice of medicine which would make possible the periodical registration of physicians in the state. The law passed in 1897 with amendment since added is one of the best medical laws in the country but it should again be emphasized that it comes under the head of

police legislation and like all similar laws can only succeed where the country medical societies make it their business to enforce it.

Respectfully,

W. N. WISHARD, Chairman.

GEORGE D. MILLER.

WILLIAM F. HOWAT.

JAMES R. BALL.

WALTER F. CLEVELAND.

REPORT OF COMMITTEE ON PATHOLOGY

House of Delegates Indiana State Medical Association:

Gentlemen:—In view of the fact that one of the most important problems in pathology today is the education of the general practitioner as well as the specialist to familiarity with and consequent full use of up-to-date scientific laboratory methods, it appears that one of the best methods to attain this end is the production of a properly systematized scientific exhibit at each meeting and an allotment of time for its demonstration and at the expense of the society. Such an exhibit would also serve to afford a place for scientific men of Indiana to present in material form the results of their investigation under the direction of the committee and at the expense of the association. It is therefore earnestly asked that a yearly appropriation be made for this purpose.

In this connection the committee feels that the profession should take official cognizance of the fact that the early diagnosis of cancer should be more generally attempted and the methods of laboratory diagnosis, especially the microscopic examination of material removed from the uterus by the curet, be more generally made use of.

It is the further belief of the Committee that since so much of the time of the men of the first and second year is devoted to laboratory work, that more encouragement and stress should be laid upon this sort of work by the men in private practice. The older men with large medical and surgical practices cannot give the necessary time and attention to such work and ought to refer it to recent graduates who are willing and able to do it, rather than send specimens that have no connection with public health to Public Health Laboratories, or specimens from patients perfectly able to pay, to laboratories of charity hospitals that are only intended for charity patients.

It is also the consensus of the committee that in view of the deplorable condition of vaccine therapy, a few young men should be encouraged to devote their whole time to bacteriological diagnosis and the preparation of vaccines for therapeutic purposes, for only in this manner can we hope to bring vaccine therapy back to a decent condition and rescue it from its present proprietary misuse.

Respectfully submitted,

HENRY R. ALBURGER.

REPORT OF COMMITTEE ON COMPULSORY VENTILATION

House of Delegates, Indiana State Medical Association:

Gentlemen:—Laws and ordinances which cover only the subject of ventilation are very difficult to secure. And as a matter of experience the subject is usually inadequately disposed of in laws relating to buildings,

residences and factories, as well as to the operations of public carriers.

COOPERATION WITH THE STATE BOARD OF HEALTH

The committee sought to cooperate with the State Board of Health in its efforts to secure the enactment of certain laws which would provide for more or less adequate ventilation of interurban cars, street-cars and other public conveyances. The last legislature, however, was not very favorable to such legislation, but we hope that some good will result from the agitation of this question. We are pleased to express our sincere appreciation of the efforts of the State Board of Health to secure legislation on this subject.

We are glad to say that we heartily endorse the Housing Law that was passed by the last legislature. The provisions for ventilation of the buildings whose construction is covered by this law is very good. And this fact suggests that the hope for satisfactory ventilation lies in the inclusion of proper provision in laws relating to construction of buildings, and general laws covering the sanitation of common carriers.

Our experience leads us, therefore, to urge that broad sanitary measures should be submitted to the next legislature in the hope that the important matter of ventilation will receive the attention it deserves.

C. S. WOODS, Chairman,
CHARLES H. EMERY,
GEORGE DENNY, Madison,
GARRETT PIGMAN, Liberty.

REPORT OF COMMITTEE ON CREDENTIALS

House of Delegates Indiana State Medical Association.

Gentlemen:—It is desirable that each component society of this association be represented by its properly accredited delegates at every meeting of the House of Delegates. One of the by-laws of the association requires the credentials of delegates to be in the hands of the committee on credentials thirty days before the time of the annual meeting of the association. By action of the House of Delegates at the Fort Wayne session it was held sufficient if the delegate brought his credentials with him at the time of the session. The organic law of practically all of the component societies provides for the selection of delegates at the time of the selection of their officers, which, by custom is at the last meeting in December of each year. Recently some of the societies have been putting off the selection of their delegates till the last meeting before the session of the state association, hoping thereby to more nearly insure their attendance. Among it all there is a probability that there will arise some confusion and some valuable time be lost before the house can proceed with its business. Last year, by dint of considerable correspondence with the county secretaries, practically a complete list of accredited delegates was laid before the secretary before the house was called to order for its first meeting. This year, so far—August 1—the credentials of only two delegates have been received, which shows a growing disposition to put off or neglect the little things to the last moment.

In view of this condition your committee recommends that the by-law referred to above be made effective in preparing the list of delegates to this house. The delegates should be selected at the time of electing officers, and their names sent at once to the committee on credentials of the association. Should

it appear later that a delegate cannot attend, the name of an alternate who can attend should be sent.

ALLEN PIERSON, Chairman,
ROBERT H. EGBERT,
CHAS. G. BEALL.

REPORT OF COMMITTEE ON NECROLOGY

House of Delegates, Indiana State Medical Association.

Gentlemen:—From Sept. 1, 1912, to July 31, 1913; ninety-nine of the physicians of Indiana have passed away by death. Their names and date of death have been properly recorded in THE JOURNAL of the Indiana State Medical Association and the *Indianapolis Medical Journal*.

In the death list of the past year the names of five physicians especially deserve to be mentioned in this report: Guido Bell, John E. Link, James L. Thompson, Charles A. Daugherty and Flavius J. Van Vorhis.

Each of these physicians contributed one or more articles on some medical or surgical topic to the Transactions of our Association, and were valuable contributors to our several medical journals. They were faithful attendants at our annual sessions, and their presence was an inspiration to all. We shall sadly miss them.

Some years ago Dr. Van Vorhis forsook medicine to engage in the practice of law. While a member of the Indiana State Medical Association he was a faithful worker. He was elected vice-president in 1881 and served in that capacity at the session of 1882.

G. W. H. KEMPER,
Chairman of Committee on Necrology.

If anyone thinks that it is an easy task to prepare a program for any medical association and then get that program, with abstracts of papers, published in advance, he ought to have been a member of the Program Committee for this year's session of the Association, or the editor of THE JOURNAL. Some members of the Association who promised to read papers at West Baden have been written at least four or five letters by the editor of THE JOURNAL, and probably two or three letters by the secretary of the Association, asking for a typewritten copy of the abstract of the paper to be presented at West Baden. Nearly all of the abstracts were tardy, and some of them did not turn up at all and no excuse offered. One member waited until he received three or four letters before saying that he had finally decided not to present a paper at West Baden; and another member waited until the program was about to go to press and then wrote that after due consideration he had decided not to prepare a paper. It seems strange that some physicians seem to have so little regard for obligation or even courtesy. Secretary Combs declares that he is possessed of an unusual amount of patience and forbearance, but that some doctors stretch his patience to the limit, and our experience in getting copy and corrected proof for THE JOURNAL leads us to appreciate the truth of what he says.

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Devoted to the Interests of the Medical Profession of Indiana

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EDITORIALS

OUR PRESIDENT

Perhaps the most interesting items in the life of any man are the place of his birth and early environment. In this respect Dr. A. C. Kimberlin, president of the Indiana State Medical Association, follows the rule obtaining with so many men of this and past generations who have accomplished things, in that he was born on a farm, the date of his birth being Jan. 21, 1863. It is also interesting to note that his birthplace was in Hamilton County, a county that has contributed many of her ablest sons to the making of the city of Indianapolis.

Dr. Kimberlin's career represents in striking manner the romance of American life. Leaving the farm when a mere youth because he was dissatisfied with the opportunities it afforded for his future, he came to the city without capital other than sturdy parentage, a healthy body, a common-school education and a determination to succeed. A three-years' course in the Indiana Medical College and one year internship at the City Hospital constituted his immediate educational equipment for the practice of medicine. But with him as with every other man who succeeds in medicine, the real school began when he left college and the hospital and began the practice of his profession. He has always been an indefatigable student and keen observer. His frequent attendance at clinics, both in this country and abroad, his deep interest in the success of the Indianapolis Medical Society, of which he has been both president and secretary, have been inspired largely by a desire to become informed of the advances in scientific medicine.

Although occupied by the exacting duties of his practice, Dr. Kimberlin has devoted a great deal of time to the teaching of medicine, and is deeply interested in the success of the medical department of the Indiana University, in which institution he holds the chair of clinical professor of medicine. In addition to his official

activities already mentioned, he has served a term on the city board of health; as a member of the House of Delegates of the American Medical Association; member of the Mississippi Valley Medical Association, and for twenty years on the clinical staff of the City Hospital. In recent years Dr. Kimberlin has turned his attention exclusively to the subject of internal medicine, and particularly cardio-vascular diseases.

The Indiana State Medical Association has honored both itself and Dr. Kimberlin in selecting a man of such large accomplishment and sterling character as its president.

THERAPEUTIC ARTIFICIAL PNEUMOTHORAX

Within the past few years there has been a decided awakening of interest in the surgical treatment of pulmonary tuberculosis by means of an artificially induced pneumothorax, the agent most commonly used being nitrogen gas. Years ago this method was rather highly expounded and later fell into more or less disrepute, only to be revived more recently by Murphy, Robinson and Floyd in this country, and Forlanini, Brauer, Spengler, Saugman and others, in Europe. So that to-day the technic has been perfected to such an extent, and the results in certain selected cases have been apparently so satisfactory, that this method of treatment seems particularly indicated in certain cases that have not done well on the hygienic form of treatment.

Recently¹ King and Mills have published a report of sixteen cases treated at their hands at the Loonis Sanitarium. Having appreciated the beneficial effects of immobilization of an actively diseased lung by a serous pleural effusion, it has been their practice not to aspirate such cases unless compelled so to do by pressure symptoms, and then only to such a degree as would relieve the embarrassment, regarding with satisfaction the occurrence of hydrothorax on the affected side in the presence of an active and progressive lesion. In taking up the problem of artificial compression of the diseased lung, they determined to limit its employment to such cases only as presented evidence of progressive disease in one lung, with comparatively slight lesions in the other and wherein the prognosis under the more conservative measures had been unfavorable.

Although a few enthusiasts have advised the procedure in early favorable cases, yet, because

¹ American Journal of Medical Sciences, September, 1913.

the prognosis in this class of cases is favorable for arrest under the ordinary dietetic hygienic treatment, the authors feel that the additional advantages of an artificially induced pneumothorax are questionable. The procedure being a radical one in any case, King and Mills feel that it is justifiable only in those cases that have progressed unfavorably despite the usual methods of treatment and in which the prognosis is undoubtedly bad by that form of treatment.

The indications for treatment by induced pneumothorax as outlined by Forlanini are first, uncomplicated unilateral phthisis, with slow or subacute course, and with a pleura free from adhesions, regardless of the degree of the lesion; second, the same with such adhesions as may be removed by artificial pneumothorax; third, bilateral phthisis not running an acute course and with lesions on both sides not far advanced. Lillingston favors the treatment for cases of acute extensive unilateral disease and also certain cases failing to respond to surgical methods, even with considerable disease of the better lung. Rhodes would utilize the treatment in pulmonary tuberculosis almost or entirely unilateral, in cases of recurrent hemoptyses if at all severe and in those with continued fever, cough and general increase of disease on one side.

Volhard does not believe in the efficiency of physical signs and x-rays in determining the presence of adhesions, but insists on actual trial to determine their presence. Involvement of the entire lung on one side he believes to be no contra-indication and thinks the most suitable cases are those of unilateral cavities. In his experience severe cases of bronchiectasis are suitable, but require long continuance of treatment.

Almost all writers agree that moderate laryngeal complications are usually benefited by the treatment and a few report favorable results in tuberculous complications of the intestinal tract.

Robinson and Floyd² regard as most suitable for compression therapy cases of unilateral disease, although slight and comparatively inactive lesions on the opposite side are not contra-indications. They do not favor the treatment of first stage cases by this method.

Strangely enough in the 102 cases reported by Brauer and Spengler many of the good results occurred in bilateral cases, marked improvement being noted by the increased mobilization in the untreated lung as well as favorable results in the compressed lung.

In the series reported by King and Mills, all cases were far advanced and bilateral, although

in almost every instance the disease was slight and comparatively inactive on the untreated side.

In the selection of a site for the initial puncture, the authors have been governed entirely by physical signs, avoiding proximity to cavity areas, as indicated by auscultation, and endeavoring to select the point where resonance on percussion and auscultatory signs indicate some respiratory activity, and freedom from adhesions. Usually they kept to the anterior and posterior axillary lines, but occasionally injected through the anterior chest wall as high as the fourth interspace and posteriorly to the angle of the scapula. The patient is given a hypodermic injection of morphine and is subsequently placed on the side opposite to that which is to be injected, with a pillow beneath to effect the greater separation of the ribs, the area selected having been painted with tincture or iodine. The parts are anesthetized with a 1 per cent. solution of novocain, injected slowly—at first beneath the skin, then deeper, and finally a small amount into the pleural sac, when by the sensation of suddenly released resistance the point of the needle is believed to have passed the parietal pleura. A few minutes having been allowed after the novocain injection, a small incision through the skin is made with a sharp scalpel and the pneumothorax needle introduced with the stylet in place and the branch connecting with the manometer and nitrogen reservoir shut off by the valve-cock. This needle-puncture being made preferably at a slight angle to avoid injuring the visceral pleura. The same sense of release of resistance indicates the puncture of the parietal pleura. The stylet being withdrawn, the valve of the stylet tube is closed, the branch valve cautiously opened and the movements in the water or mercury column in the manometer observed. The valve in the nitrogen reservoir tube is, of course, closed. If the point of the needle in the pleural sac be not plugged and no extensive adhesions are present at this point, the manometer will indicate a more or less pronounced negative pressure with oscillations, corresponding to the respiratory movements. The manometer valve is then closed and the gas allowed to pass into the chest. In the presence of a pronounced negative pressure, this should be controlled by the valve, and the gas permitted to run but slowly to avoid the shock of too rapid collapse of the lung. The amount of nitrogen which may be safely injected at the initial puncture must, of course, depend on the conditions in each case, but with a persisting negative pressure and no other contra-indications, it is probably safer to limit the first injection

2. Archives of Internal Medicine, April 15, 1912.

tion to a few hundred cubic centimeters. Robinson and Floyd give as a maximum of the first injection 1,000 c.c. It is best to induce a sufficient pneumothorax at the start to give symptomatic relief, either in lessened cough and expectoration or reduced fever, if for no other reason than to encourage the patient more cheerfully to cooperate in subsequent treatment. Five hundred or six hundred cubic centimeters usually suffice and rarely give any sense of discomfort to the patient. Subsequent injections should be made at intervals of not more than a few days until manometer readings are neutral or slightly positive and the x-rays show as complete a lung compression as is possible. After this the intervals are governed by symptoms, such as the amount and character of sputum, temperature, etc. If atmospheric air is used, the intervals will be shorter than with nitrogen. The manometer readings and the subjective feelings of the patient should determine the amount of gas injected after the initial operation, the manometer being the one device which has made artificial pneumothorax practicable as a therapeutic measure.

The possible accidents of the measure are pleural reflex, gas embolism and surgical emphysema, but the authors believe all to be avoidable with care and a little experience.

In the sixteen cases reported by King and Mills, they include six which proved inoperable by reason of adhesions, so that their series really should be limited to ten operable cases. Of these, two have shown marked and apparently permanent improvement, seven temporary improvement and more or less symptomatic relief, while in one case of lung abscess no improvement was observed. As stated, all their cases were far advanced, active, bilateral, and with decidedly unfavorable prognoses.

From their later cases the authors are encouraged to hope for better results than their report in this series indicates and feel no small satisfaction in the possession of a means by which another chance of life, slender though it may be, can be offered to a forlorn class of otherwise hopeless invalids.

This is only one of a number of recent favorable reports on the use of this method of treatment of otherwise hopeless cases of pulmonary tuberculosis and indeed the process is now recognized to be distinctly indicated in certain selected cases where the prognosis is absolutely unfavorable under the usual dietetic hygienic form of treatment.

TREATMENT OF PUERPERAL ECLAMPSIA

Despite the fact that the subject of puerperal eclampsia has been diligently pursued by a host of competent investigators since 1844, the time of Lever, Oliver Wendell Holmes, J. Y. Simpson and others, little progress has been made in the isolation of the exact causal factor. Neither has anyone succeeded in laying down a definite line of treatment that is infallible for the care of the routine case. So that to-day any conscientious obstetrician, encountering a case of puerperal eclampsia, unless he be decidedly partisan in his views, cannot early decide whether it is best to pursue a conservative or radical course.

That we are still very far apart in our conceptions of the proper course of therapy in the average case of eclampsia is well shown by the diversity of opinion expressed by Drs. Zinke and Peterson in a symposium presented before the New York State Medical Society at Rochester last spring.¹ As is well known, Dr. Zinke is a warm advocate of the conservative treatment of eclampsia and places great reliance on the use of *veratrum viridi* in large, oft-repeated doses. In the course of his discussion of the clinical course and pathology of the disease, he mentions the fact that the severity, duration and frequency of the convulsive seizures vary, depending on the character and extent of the pathologic changes within the maternal organism. While post-mortem findings have amply proven the disease to be fatal from the inception in some cases, in others the condition responds to treatment and occasionally recovery takes place without treatment. The brain may be anemic, plethoric, or together with the pia-mater may be the seat of an edema associated with anemia. Hemorrhagic exudates have been found on the cortex and at the base of the brain, but apoplectic coagula are infrequent. Involvement of the kidneys or liver is inevitable and not infrequently both are damaged, the pathologic process consisting mainly of cloudy swelling, fatty degeneration and necrosis of the secreting glandular epithelium. It is the epithelium of the convoluted tubules in the kidney that is attacked; in the liver that of the acini. Hemorrhages occur in the periphery of the acini and thrombi form within the inter- and intra-acinous branches of the portal vein. Occasionally the pathologic changes may be recognized by the naked eye, while in others the microscope is necessary for their detection. Not infrequently there are fatty degeneration and

1. New York State Journal of Medicine, August, 1913.

necrosis of the cardiac muscular fibers and multiple thrombi may occur within the vascular system and the lungs. Placental or fat emboli and hemorrhages into the serous membranes are of secondary origin. The pathologic changes of fatal eclampsia indicate the presence of one or more poisons, and the cause and character of puerperal eclampsia are based on this theory alone. Fisher's theory of acidosis or decreased alkalinity of the blood is now receiving wide acceptance.

In a practical way, Zinke declares that the practitioner ordinarily has little concern regarding the theory of the disease, but what he wants to know is how a case is to be so treated that the lives of both mother and child shall be saved. Undoubtedly Zinke believes in the majority of cases of eclampsia being the result primarily of renal insufficiency and plainly states that the prognosis is hopeless in those cases due to acute yellow atrophy of the liver or in those due to extravasation of serum or blood in the brain or spinal cord, even were we able to exactly define the pathology, ante mortem, in the individual case.

He also remarks that the fetal mortality of eclampsia largely depends on the period of gestation and the manner and time of delivery after onset, premature birth, version and extraction of the child being frequent causes of death. He declares the *accouchement force* of the past to have destroyed the great majority of children and frequently the mother. And he says further, that despite such new methods as vaginal and abdominal hysterotomy and Bossi dilatation, the fetal mortality remains high. Simply because in some cases the expulsion of the child or its death in utero has apparently favorably influenced the course and termination of the disease, he is not willing to accept the emptying of the uterus as a *sine qua non* of treatment in puerperal convulsions. Such an opinion he believes to be a grievous error, and emphatically declares that the prognosis of the disease depends wholly on the character and extent of the pathologic lesions.

He severely censures the dicta of Halbertsma and Bumm, that emptying of the uterus after the first attack would reduce the maternal mortality to 5 per cent., as being provocative of indiscriminate operations in incompetent hands.

After reviewing the results of Peterson, McPherson and others in the surgical treatment of the disease, he declares that all surgical intervention, no matter of what form, has accomplished little or nothing in reducing the mortality of puerperal convulsions. His own latest

statistics in a series of thirty cases show a maternal mortality of 13.2 per cent. and a fetal mortality of 50 per cent.

Further on he presents a table of comparison wherein treatment by decapsulation of the kidneys gave a maternal mortality in Poten's hands of 37.76 per cent.; vaginal and abdominal cesarean section at the hands of Peterson, Davis, Halbertsma and others, 33.88 per cent., while under strictly medical care in the hands of Bal-lantyne, Stroganoff, himself and others, the maternal mortality was 12 per cent.

Since 1903, Zinke has used freely Norwood's tincture of *veratrum viridi* according to the following plan:

"If the patient has or has had convulsive seizures, 25 drops (15 m. or 1 c.c.) of Norwood's tincture of *veratrum viridi* are given hypodermically, and repeated every hour until the pulse is reduced to 60 per minute or less. If within an hour the pulse falls from 150 to 100 per minute only from 10 to 15 drops are injected in the succeeding dose. More than two or three injections are rarely necessary to bring the pulse down to 60. This is the most valuable remedy in the treatment of eclampsia." Aside from this the bowels and bladder are thoroughly emptied, the patient given a hot bath or hot pack and put on a fluid diet of milk or broth, or both. Restlessness is combated by the use of chloral per orem or rectum. If the patient is at the end of the first stage of labor and the symptoms grave, he allows forceps to be employed to terminate labor, but if such stage has not been reached and the patient improved under the above outline of treatment, the case is left to Nature until such stage has been reached.

In view of his results and in cases wherein there is no mechanical obstruction to the birth of the child by the natural outlet, Zinke is unwilling to admit that the delivery by surgical intervention is the method *par excellence* for the treatment of eclampsia. He does admit, however, that in the event of the failure of such treatment as he has outlined, then operative delivery should be resorted to. Such admission forms the basis of a logical argument by Peterson, published in the same periodical,² wherein it is pointed out that the results of surgical intervention in eclampsia are largely due to just such dilatory measures as are here mentioned, namely, so-called conservative or medical treatment to the point where the pathology has so advanced as to make recovery next to impossible after surgical intervention has been resorted to, as a *dernier ressort*.

2. Loc. cit.

In fact, he presents tables of statistics of over 1,000 cases treated by operative measures wherein the percentage of mortality is reduced to 14.83 per cent., as against a mortality of 18.96 per cent. in a series of almost 300 cases treated on the conservative plan.

Peterson's conclusions concerning emptying the uterus as a method of treatment of puerperal eclampsia are as follows:

"While in a large group of cases the maternal mortality is 5 per cent. in favor of conservative treatment and spontaneous labor in cases occurring before 1900, between 1900 and 1912, on account of better and more prompt obstetric surgery, the figures are reversed and show that the maternal mortality is lower by 4 per cent. after the radical as opposed to the conservative treatment of the complication."

In a most excellent discussion of the above symposium, Franklin S. Newell calls attention to the importance of watching the blood-pressure as an index of the effects on the circulatory system of improper excretion. He declares that his experience has shown that a rising blood-pressure, even in the absence of any other symptoms, is a danger signal; that any pressure of over 130 requires careful watching and that a pressure of 150 or over denotes that the patient is in serious danger and requires active prophylactic measures, such as rest in bed, free saline purgation and a milk diet. Should symptoms increase and particularly the blood-pressure rise, venesection should be resorted to with the withdrawal of sufficient blood to reduce the pressure to 120, this often requiring the withdrawal of over 1,000 to 1,200 c.c. of blood. If, in spite of such treatment, the symptomatology increases in gravity, delivery should be the next step. He believes the untoward effects of the toxins of eclampsia to be exerted largely on the heart and that the majority of patients die from cardiac failure rather than from eclampsia.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

THE place — West Baden.

THE time — September 25 and 26.

MEMBERS of the House of Delegates should send their credentials to the Committee on Credentials now.

It is not a bad suggestion of Secretary Comb's that county medical societies should pay the actual expenses of their secretaries in attending the annual session of the Association, and yet we are under the impression that half of the county medical societies in the state will have seven kinds of fits if called on to appropriate anything which seems like an honorarium for services which are all too frequently considered of little value.

THE West Baden session should draw a large attendance. The time and the place are all that could be asked, and the program is an especially inviting one. In this number of *THE JOURNAL* we print the abstracts of practically all of the papers that will be presented at West Baden, and there is no reason why the members cannot prepare in advance for a comprehensive discussion of the subjects.

WEST BADEN has one thing in its favor as a meeting place for the Association, i. e., there is not much to take the interest of the members during the time of meetings unless the West Baden Hotel Company provides special entertainment for hours when the members should be engaged in scientific work. We note that the social activities have been scheduled for hours when it is customary for the members to seek rest and recreation.

If the members of the association will take the trouble to read the secretary's report and the table published therewith, it will be easy to discover just what councilors are visiting societies, and what county secretaries are making the reports that are expected of them. The table also shows the degree of activity of the various county medical societies, and all in all, the comparative information that is given should aid in stimulating efforts to improve on what has been done during the preceding year.

WE hope that offensive politics will have no place at the West Baden session. Our Association is organized and maintained for scientific work and the general betterment of medical men individually and collectively. Let us bestow honor on those to whom honor is due, but let us do it in that quiet and decorous manner that befits professional and scientific men. Wire-pulling for office is not only undignified but is positively detrimental to the best interests of the Association. Aside from this, honor should seek the man and not man the honor.

ONCE more let us announce that we shall be pleased to supply missing numbers to complete THE JOURNAL files of any members of the Association, providing we are notified promptly when any number of THE JOURNAL fails to appear by the end of the month of publication. Names are added to the mailing list immediately on receipt from Secretary Combs, and every subscriber is mailed a copy of THE JOURNAL regularly until the subscription expires. However, a few copies go astray in the mails each month, though we are pleased to furnish duplicates of these copies on notification by the members for whom the missing numbers were intended.

THE Indiana University School of Medicine comes in for justly merited praise in the reports of two or three standing committees of the Indiana State Medical Association published in this number of THE JOURNAL. As has been stated by the Committee on Medical Education, the Indiana University School of Medicine is given rank with the greatest medical universities of the country—a fact that should cause every reputable medical man within the borders of the state to be justly proud. It should be the duty of every medical man within the state to support the efforts of the University, not only of maintaining its present high standard, but to make the university the peer of all medical institutions.

The Indianapolis *News* of August 1 is authority for the statement that Dr. Henry E. Wright, an osteopath of Noblesville, who for a time represented Dr. John Spaunhurst, recently appointed a member of the State Board of Medical Registration and Examination by Governor Ralston, was recently arrested on the charge of practicing medicine without a license. The defendant was released on a one-hundred-dollar bond at the preliminary hearing. It is a safe bet that Dr. Spaunhurst will come to the rescue of his representative, and our estimable Governor should be proud of the fact that he has appointed to the Board of Medical Registration and Examination a man who takes such delectable pride in tearing down the medical standards in this state.

WE desire to call the attention of our readers to a statement made in the report of the committee on medical research and post-graduate work, published in this number of THE JOURNAL, that the authorities of the Long Hospital in Indianapolis (Indiana University School of Medicine) have agreed to give a special place in their

museum for the pathological collection of the Indiana State Medical Association. This will insure a permanent place for the collection and at the same time a correct classification based on a thorough study of each specimen. We join the committee in urging the physicians of the Indiana State Medical Association to send their pathological specimens to the medical school. This will insure preservation of the specimen, and the doctor will get a report on the laboratory findings.

THE suggestion made by Secretary Combs that the medical societies with large membership should employ a paid collector, is deserving of some consideration. It is a lamentable fact that the majority of doctors are rather careless in the payment of obligations, and when it comes to the payment of medical society dues they are apt to procrastinate beyond the point of patience possessed by the ordinary secretary, whose duty it is to collect the funds for his society. The secretary has neither the time nor inclination to call repeatedly on members for dues, and he should not be expected to do anything further than send out the customary announcements together with the plea for prompt payment in order to avoid delinquency. When a member is delinquent, the matter should be placed in the hands of a paid collector, who, with tact and the proper amount of courtesy, should be able to bring in the delinquent dues and aid the organization in keeping up its active membership.

GOVERNOR RALSTON's late appointments on the Board of Medical Registration and Examination have not received any praise or commendation from medical men, and but little more approval from the lay public. The newspapers of the state very wisely refrain from passing any editorial comment, though in news items they acquaint the public with the attitude of Governor Ralston, which seems to have been one of political expediency. It is unfortunate that the governor has not recognized the necessity of maintaining the high standard of the medical profession of the state and of placing Indiana on a par with many other progressive states in which general fitness for the position occupied has been taken into consideration in the appointment of those who are to sustain professional standards. Men of high moral and educational attainments should be appointed to positions on any of our state educational boards, and politics should be the last to be considered in making selections.

THE secretary of our Association gets new ideas and keeps up his enthusiasm for work by attending the annual conference of state secretaries at the annual session of the American Medical Association. County secretaries will take more interest and do better and more intelligent work, and work that is in line with the larger policies of our Association by attending the county secretaries' conference at the annual session of our Association. Every county medical society having a secretary that it likes, and desiring to keep him for next year, should pay his expenses to West Baden in order that he may attend the secretaries' breakfast and the conference. Practically all organizations pay a salary to their secretaries, and yet it is rare indeed for the secretary of the county medical society to receive any honorarium. Your society will be very ungrateful for loyal services performed during this year if it does not pay your secretary's expenses to West Baden and see that he attends.

—CHAS. N. COMBS.

BY referring to the tabulated secretary's report, found in this number of *THE JOURNAL*, we note that there is considerable difference in the dues paid by the members of the various county medical societies. St. Joseph County heads the list with dues of \$6 per year. Allen, Marion, Elkhart and Vigo have dues of \$5 per year. Wells, Grant, LaPorte and Kosciusko have dues of \$4 per year. All of the other county medical societies have dues ranging from \$2 to \$3, and not a few of the societies have the smaller amount, or just sufficient to cover the assessment of the State Association. We believe that every society should have sufficient money for operating expenses, and in particular for the publication of programs, notices of meetings, etc. It is folly to think that medical societies can be run without money, and every medical society should be able to do something along progressive lines if it has money to pay expenses—and hustle and enterprise usually cost something.

THE International Medical Congress held in London last month was attended by a large number of American physicians, not a few of whom registered from Indiana. There was a time when a medical congress anywhere outside of the United States was attended by not more than half a dozen American physicians, but nowadays every American physician takes pride in keeping himself thoroughly abreast of the times by numerous excursions to clinics and medical meetings, both at home and abroad, and it is no uncommon

thing to hear of an attendance of from fifty to three hundred American physicians at an international medical congress held outside the borders of the United States. Aside from this, it is estimated that from one to two thousand American physicians are constantly in Europe doing post-graduate work. Medical men of no other nation on earth spend the time and means that American physicians expend in an endeavor to secure the best education that is obtainable, and it is this effort with its possibilities of comparison which makes the American physician the best all-round physician in the world.

FRIEDMANN and his consumption cure, and all similar fakers and fakes, indirectly receive condemnation at the hands of the committee on tuberculosis of the Indiana State Medical Association, whose report appears in this number of *THE JOURNAL*. This is eminently proper, for there is nothing that is quite so criminal in its intent as the effort to swindle consumptives who are quite willing to grasp at anything that offers the faintest hope of relief, no matter whether the stamp of approval by reputable men has been given it or not. The American medical profession very wisely looked with suspicion on Friedmann and his cure, and accepted no small amount of bitter censure from newspapers and public men because the new discovery and its promoter were not received with open arms. However, we are pleased to note that the very agencies that made it possible for Friedmann to obtain the slightest consideration are now the ones that condemn him most bitterly, and the American medical profession has won respect for its judicial attitude in refusing to place the stamp of approval on any discovery until it has made good in a manner that can be unquestioned by those in a position to judge.

IN this number of *THE JOURNAL* we print the completed program, committee reports, and all announcements for the West Baden session of the Association. For the first time we are publishing abstracts of the papers, with the exception of one or two that are missing in consequence of the failure on the part of those essayists to comply with numerous requests for abstracts of all West Baden papers. The committee reports should be read carefully by every member of the Association, and in particular by each member of the House of Delegates, so that such reports may be acted on intelligently at the West Baden session. An innovation will be introduced this year by distributing at West Baden reprints of the com-

mittee reports to the members of the House of Delegates only. By so doing the committee reports will be accessible for ready reference when they come up for consideration by the members of the House of Delegates. Another innovation which we think will prove pleasing to the members of the Association is the addition of pictures of section officers to the list of pictures of the general officers, which are regularly published in the number of *THE JOURNAL* immediately preceding the date of the annual session. All in all, we feel that this number of *THE JOURNAL* serves a very useful purpose in advertising the West Baden session, and reflects credit on the Association as well as the editors.

THE attention of the members of the Association is called to the report of the Committee on Medical Defense published in this number of *THE JOURNAL*. It will be noted that the committee has been of service to nearly a dozen members of the Association who have been sued or threatened with suit for malpractice. In one or two instances the committee was not able to be of assistance, as the threatened member was not entitled to the protection of the medical defense feature of the Association, either through non-payment of dues, or the rendering of services prior to the adoption of the medical defense feature.

Concerning this matter of medical defense, it should be remembered that the committee is not privileged to act on the behalf of any member of the Association unless such member is in good standing through the proper payment of dues, was in good standing at the time the services were rendered for which suit is brought, and the services on which suit were based were rendered after the adoption of the medical defense feature. It will be seen that the prompt payment of dues is one of the essentials which will permit members of the Association to take advantage of the medical defense feature. Inasmuch as any doctor may be embarrassed by a suit for malpractice at almost any time, it behooves the members of the Association to permit no delinquency in the payment of dues to prevent them from taking advantage of the medical defense feature of the Association. The Committee on Medical Defense is especially deserving of credit for the capable manner in which they have handled the trust imposed on them, for while the work was entirely new to them they seemingly have managed the affairs in a most creditable manner, and with experience already had will be able to serve in a still more creditable manner in the future.

SECRETARY COMBS is to be commended for his efforts to systematize the work of the Association. His report, published in this number of *THE JOURNAL*, indicates that he is keeping in touch with the work of the councilors and the various county medical society secretaries. His plea for more activity on the part of those who are responsible for the success of our medical societies or any of their component parts is well taken, as also his suggestion that the county medical societies should provide an honorarium for their secretaries, if nothing more than the expenses to the annual session of our Association. The secretary's job is an unpleasant one at best, and it should be something more than a thankless one.

In arranging for the West Baden session, Secretary Combs has made an attempt to systematize the affairs to a greater extent than ever before with a view to having everything pass off smoothly. His letters to the officers of sections are worth publishing for the benefit of members who should assist in making the meetings of the sections satisfactory from every point of view. The letter to the chairmen is as follows:

"You have been elected to fill a new position in the scheme of the Association's organization, and I trust that it will not be amiss for me to remind you of some of the duties of your position, which doubtless you have thought of yourself by this time.

"The most irritating vice of a meeting is procrastination in convening. Please, without fail, call your section to order at the stated time, and send your secretary to secure an attendance sufficient to start with. Do not allow an essayist to consume more than twenty minutes, except by vote of the section, and then only upon your statement that the essayist is taking the time allotted to other men and the courtesy should not be abused. More latitude should be allowed discussants, although even then the watch should be held upon a man who allows his remarks to become irrelevant. Maintain a due sense of proportion in order that you may finish the program allotted for the time.

"The Association has elected you to prosecute these duties, and it earnestly wishes you to be present at every meeting of your section and faithful to the trust.

"With best wishes for the success of your section. I am,"

The letter to the secretaries of the sections, aside from the opening paragraph, which is similar to the opening paragraph of the letter to the chairmen, is as follows:

"The secretary is the life of the Section, and you will be expected to animate the chairman in the performance of his duties; to see that he calls the meetings to order promptly at the stated time, and that he observes the rules providing that an essayist shall not occupy more than twenty minutes or a discussant more than five minutes, except the leaders, and that the program shall be completed within the prescribed time. You will be expected to see that the stenog-

rapher provided by the Association is present promptly; to assist the essayist in arranging for any exhibits; to post the name of the member speaking on the blackboard provided for you; and, above all, to allow no discussant to proceed until the stenographer is in possession of the discussant's exact name and address; to see that the discussants stand in a position advantageous to the stenographer, and that the essayists deposit their papers with the stenographer. You should be on hand before the stated time to be assured that all arrangements for the meeting place and necessary equipment are made.

"The Association has selected you to prosecute these duties, and it earnestly wishes you to be present at every meeting of your section and faithful to the trust."

DEATHS

CHARLES H. ECKERT, M.D., formerly of Ft. Wayne, died in Marion on August 22; aged 55 years.

ALFRED HELDON, M.D., of Paynetown, died at his home on August 4, of heart failure; aged 62 years.

GEORGE T. WRENNICK, M.D., formerly of Philadelphia, Ind., died at Brazil, August 28; aged 72 years.

MARY E. GREEN, wife of Dr. George R. Green of Muncie, died at the family residence August 7, after a lingering illness of several months; aged 59 years.

A. D. GARLINGHOUSE, M.D., died at his home in Rockport on August 8 of apoplexy. He was 69 years old, and has been engaged in the drug business for many years in Rockport.

CHARLES B. SAUNDERS, M.D., aged 83 years, died September 1 at the home of his son, Dr. J. E. Saunders at Landessville, Ind. Dr. Saunders practiced medicine for many years at Pennville, Ind.

H. F. SCHENCK, M.D., of Oakland City, died at his home August 29 from injuries received in a runaway four weeks preceding his death. He was a veteran of the Civil War and was with Sherman in his march to the sea. Dr. Schenck was born in Columbus, Ohio, June 15, 1847.

MAJOR M. M. GORDON of Logansport died August 6 at St. Joseph Hospital following a surgical operation. He acted as United States surgeon among the Indians in Nebraska from

1870 to 1874, and practiced medicine in Francesville from 1874 to 1881. He later gave up the practice of medicine and has since engaged in the real estate and pension business.

E. M. BLOOMFIELD, M.D., of Peru was found dead in his bed at his home on August 8, death being due to acute indigestion. He was born at Eaton, Ohio, in 1841, and began the study of medicine under Dr. A. L. Dunbar of Eaton; later graduating in that course from the University of Michigan. He began the practice of medicine in Peru in 1870, where his professional ability soon won for him a conspicuous place among the medical men of the county. He was a member of the State Medical Society, American Medical Association and County Medical Society.

CALVIN I. FLETCHER, M.D., of Indianapolis was killed August 19 in a fall of six hundred feet while searching Blackfoot Glacier, in Glacier Park, Mont. Dr. Fletcher was the third Calvin Fletcher, and belonged to a family which has been prominent in Indiana affairs since statehood. He was born in Indianapolis in 1859. In 1873 he went abroad with his father, where he studied art, but on his return to Indiana he took up the study of medicine and was graduated from the Indiana Medical School, now the Indiana University School of Medicine. His medical studies were later continued at the clinics in London and Paris. Indianapolis has always been the home of Dr. Fletcher, but he has been an almost constant traveler, and it was his boast that he had been in every country of the world.

NEWS NOTES AND PERSONAL

INDIANAPOLIS

DR. B. B. PETTICHOHN of Indianapolis has been commissioned in the Medical Reserve Corps of the United States Army.

DR. C. R. STRICKLAND, Indianapolis, and Dr. J. C. Sexton of Rushville accompanied the Indiana Auto Manufacturers on their coast trip as staff surgeons.

THE annual graduating exercises of the Training School for Nurses of Dr. W. B. Fletcher's Sanatorium were held on the eve of Founder's Day, August 18. Six nurses received diplomas.

DR. THOMAS KENNEDY, ex-president of the Indiana State Medical Society, Dr. J. H. Eberwain and Dr. Charles R. Sowder, who have been seriously ill, have recovered their health.

THE Methodist Episcopal Hospital, which at the present time is erecting its second annex, will benefit to the extent of two hundred acres of valuable land from the will of Simion Smith, who recently died near Bloomfield.

THE following physicians of Indianapolis spent the summer abroad in travel and attending the International Medical Congress: Dr. J. E. Barnhill, Dr. W. F. Clevenger, Dr. David Ross, Dr. John Oliver, Dr. H. O. Pantzer and Dr. A. C. Kimberlin.

THE American Life Convention met in annual session at St. Paul, August 19 to 22. Dr. H. A. Baker of Pittsburg is president of the medical section, Dr. F. L. B. Jenney of Chicago is secretary, and Dr. Frank W. Foxworthy of Indianapolis is chairman of the program committee.

DR. KIMBERLIN, president of the Indiana State Medical Association, writes from Liverpool that he had a delightful automobile tour through the New England states, and is enjoying an interesting trip abroad. Dr. Kimberlin attended the International Medical Congress at London during his absence.

THE Long State Hospital and the two units of the new Indianapolis City Hospital will be ready for occupancy this fall. These buildings, in connection with the annex of the Methodist Episcopal Hospital and the new St. Vincent Hospital, will give Indianapolis ample hospital facilities for several years.

INDICATIONS now are that Dr. William B. Craig, dean of the Indiana Veterinary College, and Alonzo M. Ragsdale, undertaker, jointly indicted by the Marion County grand jury on the charge of murdering Dr. Helene Knabe, Oct. 23, 1911, will be brought to trial in the criminal court about the middle of October—two years after Dr. Knabe was found dead in her flat.

GENERAL

THE Newcastle Hospital at Newcastle, Ind., was recently opened to the public.

DR. T. L. EADS of Michigan City was robbed August 9 of a gold watch and \$21,000 in mortgage notes.

DR. G. W. BUCKNER, a colored physician of Evansville, has been appointed United States Minister to Liberia.

DR. H. D. FAIR of Muncie announces that from now on he will limit his practice to gynecology and obstetrics.

DR. M. V. B. NEWCOMER of Tipton was quite painfully injured on August 20 while attempting to alight from a moving traction car.

DR. AND MRS. WM. HAUSE celebrated their fiftieth wedding anniversary August 9 at their home at Westport, Ind.

DR. C. B. STEMEN of Ft. Wayne has recovered from his recent illness and is able to be in his office as usual.

DR. W. J. HURT of Waynetown, has been quite ill at St. Vincent's Hospital, Indianapolis, with neuritis.

DR. G. G. ECKHART of Marion has returned from New York where he spent several weeks in study and observations in leading hospitals.

DR. S. J. CHENOWETH, who was stricken with paralysis on August 4, is much improved and able to be at his office again.

DR. J. R. MOUNTAIN of Connersville, Ind., returned home August 29 from London, England, where he spent ten weeks in medical study.

THE Fourth Annual Meeting of the American Association for Study and Prevention of Infant Mortality will be held in Washington, D. C., November 14 to 17, 1913.

THE regular meeting of the Huntington County Medical Society was held at Huntington, September 3. The typhoid fever epidemic in that county was the main topic discussed.

DR. J. S. BOYERS attended the International Congress of School Hygiene at Buffalo, N. Y., as representative of the Indiana State Board of Health. Mrs. Boyers accompanied him on the trip.

"HOSPITAL WEEK" was observed throughout Jay County during the week of August 16 to 23 for the benefit of the Jay County Hospital, and donations of money and provisions of all kinds were accepted.

THE Miami County Commissioners have made an appropriation of \$1,500 to the Peru City Hospital with the understanding that the name of the institution is to be changed to The Miami County Hospital Association.

THE Lutheran Hospital of Ft. Wayne has purchased the Alden property adjoining the hospital grounds. The building will serve as an annex to the main building of the hospital and will accommodate at least twenty-four patients.

THE annual meeting of the Ohio State Medical Association was held at Cedar Point, Ohio, September 2 to 4. Dr. Charles F. Erdman of New York and Dr. Charles F. Hoover of Cleveland delivered the principal addresses.

THE regular meeting of the Knox County Medical Society was held at Bicknell, Ind., August 12. A paper was read by Dr. W. E. Kessinger on "The Injury of One is the Concern of All," and some clinical cases were discussed by Dr. Tom Staley.

DR. BYRON THORPE of Curtisville, Dr. A. S. Diekey and Dr. H. E. Grishaw of Tipton have been selected to succeed Dr. M. V. B. Newcomer and Dr. W. B. Huron of Tipton and Dr. A. H. Hinkle of Goldsmith as members of the medical board of pension examiners for Tipton County.

THE Huntington County Medical Society met at Markle on August 8. Several papers were read by Huntington physicians and others. The next meeting will be held at Huntington, and papers will be read by Dr. W. D. Bonifield of Warren, Dr. R. O. Tavinier and Dr. F. W. Grayson of Huntington.

A LOAN of \$80,000 has been secured by the finance committee of the Mercy Hospital at Gary, Ind., and the contractors will now rush the work on the big building to early completion, and it is thought that the same will be ready for occupancy by the first of the year.

WHILE en route to New York on August 5, to sail for London to attend the International Medical Congress, Dr. M. Ravdin of Evansville suffered an acute attack of appendicitis and was taken to the Battle Creek Sanitarium for treatment.

BEGINNING this fall Harvard University and the Massachusetts Institute of Technology are to maintain in cooperation a School for Public Health Officers, to prepare young men for public health work and to fit them to occupy positions such as health officers, members of boards of health, etc.

A HOSPITAL for the treatment of tuberculosis will be erected in South Bend, Ind., at a maximum cost of \$50,000. Thirty acres of land necessary to complete it have been condemned by the county commissioners, and a board of four members—two of which must be physicians—will be appointed to supervise its erection.

THE Lutheran Hospital of Ft. Wayne observed its tenth anniversary on August 10. The principal speakers were Rev. G. Fisher of Aurora, Rev. W. Brandeis of Cleveland, Rev. W. Roesener of Bremen and Rev. E. Eggers of Seymour. The Rev. Philip Wambsganns of Ft. Wayne was re-elected president of the hospital association.

A NEW pension examining board has been appointed at Corydon as follows: Dr. Burrell F. Forbis of Laconia, Dr. Sam A. Smoots of New Middletown and Dr. John C. Bottorff of Corydon. The retiring board are: Dr. D. W. Hays of Valley City, Dr. L. F. Glenn of Ramsey and Dr. F. E. Wolfe of Corydon.

THE new Gibson County Board of Pension Examiners will be composed of Dr. A. R. Burton (reappointed) of Princeton, Dr. M. A. Montgomery of Owensville, and Dr. W. W. French of Fort Branch. The members going out are: Dr. W. G. Hopkins of Fort Branch and Dr. W. W. Blair of Princeton.

THE annual meeting of the Thirteenth District Medical Society was held at Lake Wawasee August 29, and was attended by sixty-five physicians in the district. Dr. T. J. Shackleford of Warsaw was elected president, and Dr. C. Norman Howard of Warsaw was re-elected secretary and treasurer.

ALL of the eighty-nine medical students who took the semi-annual examinations held under the direction of the State Board of Medical Registra-

tion and Examination, received passing grades, and they will be licensed to practice in Indiana. This was the first time in the history of the State Board that every applicant for a license succeeded in obtaining the required grade.

THE final steps in the legal process of making the Fayette Sanitarium of Connersville a corporation were taken at a recent meeting of the citizens of that place. New committees were appointed—representatives of certain lodges and organizations of Connersville—and under this sponsorship and with the appropriations made by the county and city it is thought that its financial difficulties are solved and its usefulness increased in every particular.

THE fourth International Congress on School Hygiene was held at Buffalo, N. Y., August 25 to 30, 1913. The following Indiana physicians presented papers: Wm. Gray Swank, M.D., Crawfordsville, "Sanitation of the Consolidated Country School"; Otis B. Nesbit, M.D., Valparaiso, "Health Supervision of Public School Children at Valparaiso"; James H. Morrison, M.D., Harts-ville, "The Evolution of Hawcreek Township"; Robert Hessier, M.D., Logansport, "Dusty Air in the Schoolroom"; E. DeWolfe Wales, M.D., Indianapolis, "Prevention of Ear Troubles Among Schoolchildren"; Danial W. Weaver, M.D., Greensburg, "Overhead Schoolhouse Lighting."

CORRESPONDENCE

THE INTERNATIONAL CONGRESS OF MEDICINE

LONDON, Aug. 23, 1913.

To the Editor:—The opening of the Seventeenth International Congress of Medicine took place on scheduled time, August 6, with Sir Thomas Barlow, president, in the chair. The Duke of Connaught received the representatives of the twenty-eight different countries. There were about eight thousand physicians from all parts of the world present. Albert Hall, the place of the opening meeting, was filled to its greatest capacity. Unfortunately, the acoustic properties of the hall were very bad, though this in no way interfered with the huge organ of more than eight thousand pipes sending its melodies and charms to every listener. The representative of each country was introduced to and received by the Duke, and each spoke in his own language. As the respective representatives were

approaching the stage the great organ thrilled the audience by playing the national air of the country whose representative was being introduced. Dr. W. S. Thayer of Baltimore was the representative of the United States.

The crowd naturally was a very cosmopolitan one, in language, dress and appearance. One thing which particularly impressed an American was the conspicuous absence to a large extent of the English frock-coat, the majority of Englishmen wearing short sack coats. There was no little comment as to whether this was an evidence of waning dignity on the part of our English cousins, or whether it was consistent with the many changes now slowly going on among the people we so much admire. One could hear every language, but the committee on arrangements had provided different colored flags, representing the language spoken by the wearer. Naturally English predominated, but many wore every color, making a spectacular appearance of their coat fronts.

Many social functions had been arranged, but were not very well attended, owing to the natural attractions of the city itself. Certainly the London profession made a great effort and did well in providing for the comforts and conveniences of its guests. There was a great deal of scurrying about, everyone seeking a position of advantage or information, though the crowd was cheery and good-natured at all times. From general observation there were a few who seemed anxious for an opportunity to tell what they knew, but the majority were bent on learning something.

The meeting was divided into twenty-three sections, and their study took a range from simple home hygiene to the most technical subjects. The United States was quite conspicuous in the work, and made a showing that need not wound the pride of any real American. Dr. Harvey Cushing of Baltimore was perhaps the most conspicuous American in attendance, from the standpoint of activity at least. His quiet, unassuming manner and logical discussions made him very popular. His address in surgery on "Science and Vivisection," and his opening paper on "The Treatment of Brain Tumors" before the joint session of surgeons and neurologists received the highest compliments, the latter paper opening one of the biggest discussions of the entire meeting, participated in by Professors Eiselsberg of Vienna, Fedor Krause of Berlin, Victor Horsley, Sir W. W. Cleayner of England, Babinski, Sicard of Paris, MacEwen of Glasgow and many others of international fame, offering a rare treat, which

was alone well worth the journey across the sea. Dr. G. W. Crile of Cleveland presented his subject of Anoci-association in a most convincing way, which thoroughly popularized him with the entire meeting. Strange as it may seem, many of the continental surgeons had only a vague idea of the value and working of his method; it was received with great applause, the Germans especially seeming eager to know more about it in detail. Dr. Teter also contributed much in making a favorable impression of the importance of "Anesthesia in Surgery." Unfortunately, Dr. Crile's paper was presented before the Section on Anesthetics; had it been before General Surgery the good would have been much greater.

There were many other American surgeons of note present: Drs. Matas of New Orleans, Murphy of Chicago, and W. J. Mayo; the latter, however, took no active part in the meeting at all, though everyone seemed to know about the Mayos. It was a great delight, to Americans at least, to see Sir William Osler in the chair as president of the Medical Section. In this section papers and discussions were made rich by Von Noorden of Vienna, Frederick Müller of Munich, H. Strauss, C. A. Ewald, Fred. Kraus all of Berlin, William Hunter, Hale White, Poynton and Payne, and many other prominent English physicians. From the United States were Barker, Thayer, Walsh, Einhorn and Libman. Many important subjects were discussed in this section; one so-called "Rheumatism." The question was as to the use of the name, the cause and the treatment; all were agreed that the name must be eliminated from the medical vocabulary, if for no other reason than that it leads to too many mistaken diagnoses, and irregular and unintelligent treatment. That rheumatism was merely a symptom of infection all believed, yet the cause of the simple acute inflammatory joint troubles seemed to be somewhat of a stumbling block to the microbic theory. Professor Ehrlich was largely in a class by himself, and read a paper on "Chemotherapy," which was one of the big events of the meeting. There was a feeling of deep regret that Professor Banti of Venice, after whom a disease is named, was not able to be present, though his paper on "Anemias of Splenic Origin" was read in good, clear English by Professor Brock of Rome. The custom of speaking English was quite common, particularly among the Germans.

One of the interesting occurrences of the meeting was the thoroughly vicious attack of Professor Genet of Paris on Freud's theory of psychoanalysis. It was strongly defended by

the Germans, but the general impression was that Genet had shown it to be unsound, if not dangerous. Dr. William Hunter of London gave one of the most exhaustive and well-illustrated presentations on the question of "Primary Anemias," followed by the presentation of cases in which splenectomies had been done as a cure, some of his cases having been operated on as long as eight years ago. Unfortunately, his clinical presentations were not very creditable, and the diagnosis in some of his cases doubted. The work in radiology seemed to center around the early diagnosis of lung diseases. The usual difference of opinion prevailed between the radiologist and the physical diagnostician. The proper way of taking an x-ray picture of the chest seemed easy, but its translation all argued was very difficult and of primary importance, and that the less experienced radiologist usually found too much in his plate, consequently made many serious errors. That shadows so regularly present at the base of the lungs and supposed to be due to tuberculous glands, was not accepted at all, though none seemed to be able to explain their cause or significance. To be sure many theories were offered, but most of them were conservative, and felt it would require time to clear many points.

One very impressive feature of the meeting was the extensive use of lanterns and slides in illustrating subjects. Every section was provided with one or two, and there were very few illustrations by any other method. The climax of the success of teaching in this way was abundantly demonstrated in an address given by Dr. J. Camandon of Paris on "The Application of the Cinematograph to Biological Science." This was delivered at the reception of the Royal Society of Medicine, by invitation, to the Medical Section. The whole of this, as the speaker expressed it, "seemed like a veritable nightmare." One could only appreciate it by seeing it. His first picture showed the beating of the heart and the action of the valves, then followed the pulmonary circulation in which the red and white corpuscles were clearly seen passing through the capillaries. In another, the increased volume of the blood in the lungs with each heart contraction was clearly shown. Next, a picture of a dog with a pancreatic fistula and tube inserted, from which he gathered the secretion, and showed its power of digestion of sugar in test-tubes. The contented and comfortable appearance of the dog made strong argument in favor of vivisection. He showed ameba with its pseudopodia and rapidly streaming currents, and its migration as well as method of taking food. Also the process of fertilization of the ova of the sea-urchin, trypano-

somes of sleeping sickness in the blood of a rat, spirochete of syphilis circulating in the blood of a chicken, his remark at this time being, "If the cinematograph reveals to you the enemy, it is also able to show you the defenses of the organism." He then pictured the white corpuscles playing the part of phagocytes. Lastly, the mosquito, stage by stage, in its development from aquatic larvae to the final development of its wings, when, as he added, "It now flies away, frequently to our considerable inconvenience." This was one of the most remarkable demonstrations of science, and so perfect, yet so real, that one unconsciously felt awed at the intricacies, complications and perils of organic life.

A. C. KIMBERLIN.

FEE-SPLITTING

I have read the correspondence concerning fee-splitting in the last few numbers of THE JOURNAL with great interest. In general, the sentiments expressed are quite in keeping with the traditional dignity and moral grandeur of the medical profession. It is certainly humiliating, however, as Dr. Pfaff remarks, that we should be called on at all to discuss such a question. If all physicians were *simply honest*, to say nothing of that high sense of honor, and that splendid *esprit de corps* so conspicuous in the past, such a discussion would be unthinkable.

That any physician should be so completely sordid and commercialized as to induce his patient to pay a large fee for the services of a specialist and then secretly accept a portion of that fee seems unbelievable. While the specialist who secretly divides his fee has not the same confidential relationship to the patient, he is even more reprehensible. The family physician is entitled to full compensation, but there is only one decent, honest way to get it, and that is by presenting a bill for his services and demanding payment.

But for your request for such a statement, I would not think it necessary to add that I have never either given or received a dollar on such a basis, and, of course, never will.

G. W. McCASKEY.

SOCIETY PROCEEDINGS

TENTH DISTRICT

The Tenth District Medical Society was held in Wolf Hall at Michigan City on August 21. The program arranged for this session was as follows:

"The X-Ray as an Aid in Diagnosing Intra-Abdominal Conditions," by Dr. A. R. Simons, La Porte; "Some Points of Differential Diagnosis of Typhoid Fever and Malaria," by Dr. G. H. Stoner, Valparaiso; "Some Considerations in the Treatment of Rheumatism," by Dr. George R. Osborne, La Porte; "Artificial Feeding of Infants," by Dr. I. W. Iddings, Lowell; "Cytodiagnosis," by Dr. L. A. Wilson, Michigan City; "Puerperal Septicemia," by Charles O. Wiltfong, Chesterton; "Diabetes," by Dr. A. C. Croftan, Chicago.

Adjourned.

O. B. NESBIT, Secretary.

CARROLL COUNTY

The doctors of the Carroll County Medical Society enjoyed a fish-fry on the banks of the Wild Cat, at Cutler, on August 8. The meeting was held preceding the "big eats" and a paper on "Etiology, Diagnosis and Treatment of Arthritis," was given by Dr. C. E. Carney of Delphi. Dr. T. A. Kearns led the discussion.

Adjourned.

W. R. QUICK, Secretary.

DELAWARE COUNTY

The Delaware County Medical Society met in regular session at the Muncie Public Library August 1, Dr. W. W. Wadsworth presiding. One of the most scientific papers ever read before our society was presented by Dr. J. R. Thrasher of Indianapolis on the subject, "Wassermann Test, Immunity and Fixation Complement." The principles underlying the Wassermann reaction are the principles of immunity. Red corpuscles of animals, broken up and set free, result in the phenomenon, hemolysis. Substances which cause hemolysis are hemolytic. Fresh blood-serum of any animal is hemolytic for the red corpuscles of some, but not all other species. Hemolysis by serum results from the coordinated action of two distinct substances present in the serum, amboceptor and complement; the latter being present in all fresh sera. The former may be present or absent.

Red corpuscles do not absorb complement from the serum if no amboceptor be present. Complement is easily destroyed while amboceptor is stable. The relation of amboceptor to red corpuscles is specific, i. e., one which, acting with complement, destroys human corpuscles may have no action on red cells of sheep or rabbits. An amboceptor can hemolyze only one kind of corpuscle. Thus antisheep amboceptor can destroy only sheep corpuscles. Complement is not specific and can act with different amboceptors.

We also have amboceptors active against different kinds of bacteria; the phenomenon known as bacteriolysis. When various unorganized protein substances are injected into an animal they elicit a response giving rise to specific immune substances or reaction products, which are called antibodies, each related to a corresponding antigen. Wassermann reasoned by analogy from other infectious diseases in which antibodies had been demonstrated, that they might occur in the blood of persons infected with syphilis, and if they did occur, their presence might be detected by complement-fixation. Wassermann used as his syphilitic antigen an aqueous extract of the liver of a syphilitic fetus. His results are well known to us all. By the determination of the exact amount of complement absorbed we determine the quantity of syphilitic antibody in the patient's blood. By its use we may know

just what any remedy is accomplishing in the way of treatment. A positive Wassermann reaction means not only syphilis but active, progressive syphilis. The Wassermann test has shown how remarkably syphilis resists a final cure. It shows that hereditary syphilis is more pernicious and far-reaching than was ever suspected. It has overthrown the law of Colles (the child of a syphilitic father will render its mother immune) and that of Profeta (healthy-born children of syphilitic parents enjoy immunity). It also demonstrates that the per cent. of cures before advent of salvarsan was small. It is our only means of detecting relapses before clinical symptoms appear, and it is our guide in permitting a syphilitic to marry, or having married, to beget children. Generally speaking the fresher the syphilis the more susceptible to treatment, and the older the more difficult to completely cure. This is particularly true when the specific organism is resting in inaccessible parts of the body such as lymph spaces, bone marrow and encapsulated nodes.

Dr. A. W. Brayton, that veteran student (or studious veteran) opened the discussion by amplifying Dr. Thrasher's remark very intelligently. He told of the researches of Noguchii and other great men of his kind and of his personal visit to the former. Dr. Brayton also spoke of the splendid work being done by Dr. Thrasher at Indianapolis and recommended his services as competent, conscientious and complete.

The discussion was continued by Drs. Mix, Wadsworth and others.

Adjourned.

H. D. FAIR, Secretary.

JENNINGS COUNTY

The members of the Jennings County Medical Society, accompanied by their families, gathered Wednesday, August 27, at the Deputy Camp Meeting Ground for the annual picnic. A very happy day was spent spinning fish yarns, pitching horseshoes and manhandling fried chicken.

After a very strenuous tournament Drs. Robertson and Matthews were pronounced horseshoe champions. A new long-distance fried-chicken-consuming record was established by Dr. Stemm.

A business session was attempted in the afternoon, but the arrival of delicious-looking ice-cold watermelon on the ground promptly broke it up.

The Jennings County Medical Society has been holding these picnics annually for a number of years and they have proven to be of great value in promoting good fellowship among the members.

Adjourned.

JOHN H. GREEN, Secretary.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held in the Hammond Chamber of Commerce, July 10, Dr. Weis presiding, with thirteen members present.

Transfer of membership was received from Dr. Clarence A. Johnson, the card having been issued by the Jackson County, Kansas, Medical Society. This was referred to the Board of Censors.

The secretary reported that he had issued a transfer of membership to Dr. G. F. Bicknell, now located in Florida.

A communication from the Indiana State Board of Medical Registration and Examination was read, and in accordance with the request of the board a com-

mittee was appointed to investigate the matter of irregular practice in Lake County, as follows: Drs. Evans, Fox and Shanklin.

A communication from the Red Cross Association was also read, asking that a committee be appointed to assist in furthering the Red Cross work in this county. The following committee was appointed: Drs. Weis, Shanklin, J. W. Miller, Gibbs and J. W. Iddings.

On motion, the following members were appointed to arrange a program in connection with the annual picnic to be held at Lake Front Park, Hammond, August 7: Drs. Sharrer, Chidlaw and Fox.

Motion carried that committee be appointed to arrange a program for the annual meeting of the society, to be held in Hammond in November. The following were appointed: Drs. Howatt, Sharrer, Ross, Schaible and Shanklin.

Adjourned.

E. M. SHANKLIN, Secretary.

The annual picnic of the Lake County Medical Society was held in Lake Front Park, Hammond, August 7, with an attendance of about fifty. The usual scientific program was dispensed with and due attention given to the excellent dinner prepared for the occasion. Dr. Clarence A. Johnson was elected to membership in the society, he having transferred from the Jackson County (Mo.) Medical Society. Dr. H. M. Hosmer, Gary, and Dr. E. M. Shanklin, Hammond, were elected delegates to the meeting of the state association at West Baden.

Adjourned.

E. M. SHANKLIN, Secretary.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session July 31 at Dr. Eidson's office, with eight members present. Minutes of previous meeting read and approved.

Dr. Wiseman was elected delegate to the State Association, and Dr. A. A. Thompson alternate.

Dr. Loring read a paper on "Factors That Cause Mortality in Operations." Dr. Knott read a paper on "Floating Kidney," and Dr. Hardy read a paper on "Acute Rhinitis."

General discussion.

In view of the fact that the August meeting comes on the same date as that of the District Medical Society, the Marshall County Medical Society will meet August 24 at Culver, instead of August 31.

Adjourned.

A. A. THOMPSON, Secretary.

The Marshall County Medical Society met at the Osborne Hotel, Culver, Ind., August 21, at 1:30 p. m. The following members were present: Drs. Wiseman, Parker, Shipley, Sarber, Holtzendorff, Eley and Thompson. After roll call the minutes of the July meeting were read and approved. The censors were given another month to consider applications for membership in the society that were pending. Dr. Holtzendorff was appointed to confer with the library board as to holding future meetings in the new library building.

Dr. Shipley read a paper on "Carcinoma," which was thoroughly discussed by all present; and the president led in a discussion on the "Treatment of Summer Diseases of Children."

Adjourned.

A. A. THOMPSON, Secretary.

MIAMI COUNTY

At a recent meeting of the Miami County Medical Society, the following resolutions were introduced concerning the death of Dr. E. M. Bloomfield:

WHEREAS, in view of the loss we have sustained in the decease of our friend and associate, Dr. E. M. Bloomfield, and the still heavier loss sustained by those who were nearer and dearer to him, therefore be it;

Resolved, That it is but a just tribute to the memory of the departed to say that in his going from us we very sincerely regret his loss. He was a useful citizen, a good and able physician, admired and loved by the entire community, and it is not saying too much to say that he was worthy of our respect and regard; and be it further;

Resolved, That this testimonial of our sincere sorrow be forwarded to the family of our departed friend by the secretary of this Medical Society. Also, a copy to be sent to the American Medical Association and the Indiana State Medical Association.

J. O. WARD.
E. H. GRISWOLD.
BROWN S. MCCLINTIC.

PUTNAM COUNTY

The meeting of the Putnam County Medical Association was held in the office of Dr. Eugene Hawkins at Greencastle on August 12. Dr. Bastin of Fillmore read a paper dealing with his record as the attending physician at births in Putnam County. The paper was exceptionally interesting and instructive. Following the business meeting, Dr. Bastin entertained the members of the association at dinner.

Adjourned. EUGENE HAWKINS, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 North Dearborn Street, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

DIGIPURATUM AMPULES.—Each ampule contains 1 Cc. of a digipuratum solution, equivalent to .1 gram digipuratum. Knoll & Co., New York (*Jour. A. M. A.*, Aug. 23, 1913, p. 568).

DIGIPURATUM SOLUTION FOR ORAL USE.—Vials containing 10 Cc. digipuratum solution, each Cc. representing .1 gram digipuratum. Knoll & Co., New York (*Jour. A. M. A.*, Aug. 23, 1913, p. 568).

TETANUS ANTITOXIN.—For description of Tetanus Antitoxin see N. N. R., 1913, p. 218. H. M. Alexander & Co., Marietta, Pa.

ACNE VACCINE.—For description of Acne Vaccine see N. N. R., 1913, p. 221. Schieffelin & Co., New York.

PERTUSSIS VACCINE.—Pertussis Vaccine is a *Bacillus Bordet-Gengou* Vaccine. Schieffelin & Co., New York.

MENINGOCOCCUS VACCINE.—For description of Meningococcus Vaccine see N. N. R., 1913, p. 223. Schieffelin & Co., New York.

COLI VACCINE (POLYVALENT).—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Schieffelin & Co., New York.

GONOCOCCUS VACCINE (POLYVALENT).—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Schieffelin & Co., New York.

PNEUMOCOCCUS VACCINE (POLYVALENT).—For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Schieffelin & Co., New York.

STAPHYLOCOCCUS VACCINE (POLYVALENT).—Schieffelin & Co., New York.

STAPHYLOCOCCUS ALBUS VACCINE (POLYVALENT).—Schieffelin & Co., New York.

STAPHYLOCOCCUS AUREUS VACCINE (POLYVALENT).—For description of Staphylococcus Vaccine see N. N. R., 1913, p. 225. Schieffelin & Co., New York.

STREPTOCOCCUS VACCINE (POLYVALENT).—For description of Streptococcus Vaccine see N. N. R., 1913, p. 226. Schieffelin & Co., New York.

TYPHOID VACCINE.—For description of Typhoid Vaccine see N. N. R., 1913, p. 227. Schieffelin & Co., New York.

REFORM IN MEDICINES

CLINICAL EFFECTS OF "NATURAL" AND "SYNTHETIC" SODIUM SALICYLATE.—A critical study of the literature, a pharmacologic investigation, and comprehensive chemical analyses, have shown that the claim for superiority of the "natural" sodium salicylate over the "synthetic" kind, is not warranted by the evidence. While these investigations all indicate that no difference exists between the two varieties of sodium salicylate, it was agreed that clinical tests were required definitely to decide the point. Accordingly the Council with the aid of clinicians of recognized standing with hospital facilities at their disposal undertook a comprehensive clinical comparison of the effects of the two kinds of sodium salicylate. The results of this investigation have been compiled by Dr. A. W. Hewlett and they show that "natural" and "synthetic" sodium salicylate are indistinguishable so far as their therapeutic and toxic effects on patients are concerned (*Jour. A. M. A.*, Aug. 2, 1913, p. 319).

REEXAMINATION OF LACTOPEPTINE.—Lactopeptine was examined by the Council on Pharmacy and Chemistry about six years ago and found to be little more than weak saccharated pepsin and did not contain the other ferments which were claimed by the manufacturers to be present. Because of claims made recently by the exploiters that Lactopeptine contained not only pepsin but also pancreatin, diastase, lactic acid and hydrochloric acid, an examination of Lactopeptine, purchased here and in England, was undertaken by the Council. The reexamination failed to demonstrate any diastase or pancreatic action and also demonstrated the absence of free hydrochloric acid. Tests indicated the presence of lactic acid, probably in the combined form, and also of pepsin. The investigation reaffirms that, in digestive activity, both the Lactopeptine purchased in the United States and that bought in England are essentially weak saccharated pepsin (*Jour. A. M. A.*, Aug. 2, 1913, p. 358).

ELIMINATION OF DIGITALIS BODIES.—R. A. Hatcher studies the rate at which digitoxin and ouabain are eliminated from the circulation. He finds that digitoxin and ouabain leave the mammalian circulation very rapidly after their intravenous injection. He believes that the digitalis bodies are not fixed in the tissues, but that they diffuse rapidly and are then eliminated (*Jour. A. M. A.*, Aug. 9, 1913, p. 386).

MORLENE.—Morlene is a worthless goiter and obesity nostrum sold by the Interstate Drug Company, Cleveland, Ohio. The firm's letters are signed by F. F. Finch who at one time was engineering a scheme by

which physicians who prescribed certain products said to be made by the Wade Chemical Co., Chicago, would receive half the profit on the goods sold. Morlene is sold under the claim that, when used externally, it "will reduce goiter, tumors, thick neck, double chin, enlarged joints, inflammation, bust and waist line." Examination in the A. M. A. Chemical Laboratory indicated that the composition of the specimen examined was essentially: alcohol (by weight) 53.32 per cent., soap 3.61 per cent., sodium iodid 12.01 per cent., sucrose (cane sugar) 12.87 per cent., water and undetermined matter (by difference) 18.19 per cent. Physiologic experiments showed that the sodium iodid in Morlene was not absorbed when the preparation was rubbed on the skin. Hence, Morlene when used as directed (by external application) cannot produce the effects claimed (*Jour. A. M. A.*, Aug. 16, 1913, p. 505).

HASTY GENERALIZATIONS.—The search for "specifics" has become so keen partly because of notable success in a few instances and the competition between drug manufacturers has become so great that there is at present an overshadowing danger from this sort of reckless medication that it may in the end react unfavorably on chemotherapy. An illustration of the insufficient evidence on which new therapeutic measures are based is given by Salkowski's experiments which indicated that cephalin, when administered, is stored in the brain. While in a limited number of experiments the retention of but 5 per cent. was indicated, Salkowski considers this sufficient to advocate the use of cephalin in progressive paralysis and other cerebral affections. As a result the use of cephalin will receive an impetus, as yet unwarranted by the evidence (*Jour. A. M. A.*, Aug. 23, 1913, p. 603).

SUICIDE WITH MERCURIC CHLORIDE.—Recent newspaper accounts have given the impression that the ingestion of corrosive sublimate ensures not only certain, but also painless death. As the dread of pain incident to suicide keeps many from taking the fatal step, the public should be acquainted with the fact that there are few modes of suicide more painful and in which the agony is longer drawn out than in death from mercuric chloride (*Jour. A. M. A.*, Aug. 23, 1913, p. 606).

THE COMPOSITION OF NOSTRUMS.—Himalya, the Kola Compound, though advertised as "Nature's Great Specific for the Cure of Asthma," is reported by the chemists of the North Dakota Agricultural Experiment Station to be "a weak hydro-alcoholic solution of potassium iodid, flavored with peppermint and licorice and colored with caramel." While the name would indicate that the active ingredient of the nostrum was kola, little appeared to be in the preparation.

Mrs. Bradley's Face Bleach is claimed to remove "moths, tan, freckles, pimples, blackheads" and to prevent "wrinkles, oiliness and aging of the skin." According to the Druggists' Circular it contains anhydrous magnesium sulphate 45.7 per cent., sodium chloride 9.7 per cent., mercuric chloride 23.6 per cent., water 23 per cent.

Dr. Felix Gouraud's Oriental Cream was analyzed by the state chemists of New Hampshire and found to consist of "approximately one-half ounce of calomel suspended in a short half-pint of water." More recently essentially the same composition was found by the chemists of the Connecticut Agricultural Experiment Station.

Cat-Er-No, Soulés, according to the North Dakota Agricultural Experiment Station is an aqueous solution of menthol with just enough of a vegetable drug to give it a color.

Ely's Liquid Cream Balm, sold as a "remedy for catarrh, catarrhal deafness, hay-fever, cold in the head," according to the Connecticut Agricultural Experiment Station "appears to consist of liquid petrolatum with small quantities of thymol and menthol."

Dr. Boskano's Cough and Lung Syrup, a "new remedy for the positive cure of consumption, coughs, colds, etc.," was examined by the Kansas State Board of Health and also by the North Dakota Agricultural Experiment Station. The latter reports that it "appears to be made from an inferior grade of honey, syrup of tar, chloroform, alcohol and morphin." The morphin was found not to be in solution, but deposited on the sides of the bottle. Yet the mixture did not bear a "shake" label.

Véritable Grains de Santé du Docteur Franck are claimed to prevent "typhoid congestions" and various other woes which arise from impaired intestinal functions. Examined in the Connecticut Agricultural Experiment Station, the grains were found to be essentially aloes.

Dr. Bloomer's Catarrh Remedy comes in cigarette form. Analyzed by the North Dakota Agricultural Experiment Station, it was found to contain "chamomile flowers over 50 per cent., powdered cubeb, fennel seed, and a few other powdered vegetable substances."

Schenck's Pulmonic Syrup, a "70-year-old Remedy for Consumption, Coughs, Colds, Diseases of the Lungs and Respiratory Organs," was analyzed by the Connecticut Agricultural Experiment Station. The report states "This remarkable remedy for consumption is essentially a wintergreen-flavored mixture of saccharin syrups, 96.4 per cent. of the solids consisting of sugar. It is hard to believe that the virtues of this material rest in the 2.7 per cent. of undetermined solids (possibly vingar of squills). . . ."

Dr. J. H. McLean's Tar Wine Lung Balsam "Will cure coughs, colds, bronchitis, consumption, asthma, throat and lung troubles." According to the state chemists of North Dakota analysis of this preparation would indicate that it "is nothing but a weak syrup of tar, containing about 15 per cent. by volume of ethyl alcohol."

Dr. Gum's Pain Expeller, having been declared misbranded in Colorado some time ago, was examined in the North Dakota Agricultural Experiment Station. The examination showed opium and alcohol. Camphor and capsicum were also present (*Jour. A. M. A.*, Aug. 23, 1913, p. 615).

LACTOBACILLINE LIQUIDE.—Lactobacilline Liquide has not been submitted to the Council on Pharmacy and Chemistry by its exploiters and no examination of the claims appears to have been made by competent investigators. Some years ago P. G. Heinemann examined Lactobacilline powder and Lactobacilline tablets and found the claim made for them unreliable. In view of this the claims made for Lactobacilline Liquide should be viewed with suspicion (*Jour. A. M. A.*, Aug. 23, 1913, p. 618).

BOOK REVIEW

A TEXT BOOK OF THE PRACTICE OF MEDICINE. By James M. Andres, M.D., Ph.D., LL.D., Professor of Medicine and Clinical Medicine at the Medico-Chirurgical College; Physician to the Medico-Chirurgical Hospital, etc. W. B. Saunders Company print.

The fact that this work has passed through ten editions is ample evidence of its worth as a text-book of the practice of medicine. Much new matter has been added to this edition to bring the work up to date.

It is surprising to note that only a single paragraph is devoted to the serum treatment of tuberculosis and this fact is rather disappointing when the otherwise thorough discussion of the treatment of disease is taken into account.

The work is to be commended for the very excellent presentation of the symptomatology of diseases usually enumerated in a work of this kind.

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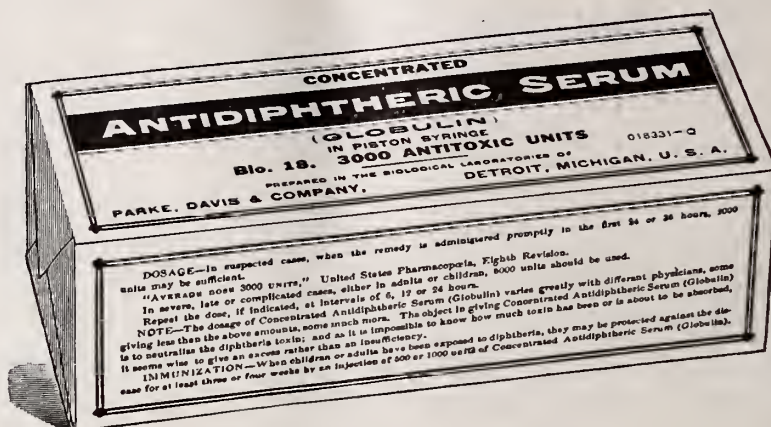
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THE INDIANA STATE MEDICAL ASSOCIATION

Next Annual Session, Lafayette, September 24 and 25, 1914

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THE JOURNAL

OF THE

INDIANA STATE MEDICAL ASSOCIATION

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION OF INDIANA

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VOLUME VI

FORT WAYNE, IND., OCTOBER 15, 1913

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PRESIDENT'S ADDRESS

PITFALLS IN THE PROGRESS OF MEDICINE *

A. C. KIMBERLIN, M.D.

President Indiana State Medical Association

INDIANAPOLIS

The rapid evolution in methods of practical medicine during the past few years has made necessary, in order that we keep pace with advancing science, more or less commotion if not confusion in many of our practical procedures.

The Seventeenth International Congress of Medicine, in recent session in London, made very clear two points. The first, carrying a touch of pathos, was the passing forever of the old-time family doctor; second, practical medicine and hygiene of to-day must rest directly on a thoroughly scientific basis. As a result of the advances in both science and art of application, the latter has been attended with not a few mistakes and some dangers to our orderly and rapid progress. With regard to some of the more important dangers and pitfalls I shall address a few remarks.

MEDICAL EDUCATION AND ORGANIZATION

A danger so prominently before us as to amount to discouragement is the lack of a more thorough and active state medical organization. That so many intelligent and successful physicians are indifferent to the necessity and advantages of organization is inexplicable. A day spent attending a medical meeting is time never lost. As a rule, the most active workers in a society are the ones best informed in medicine. How unfortunate it is that our profession is so often criticized

by the public or ridiculed by the bar or distrusted by the legislature, much of which criticism is inspired by physicians not freely cooperating among themselves or too openly finding fault with one another's work. A good medical organization stands for peace, good will and cooperation among all members.

Physicians suffer greatly in their prestige by neither cultivating nor enjoying social life among themselves, which should not only be made a pleasure, but of great benefit, by largely eliminating from an organization much of the personal equation.

Questions of policy, legislation, enforcement of laws, protection against quacks and "patent medicine," promoting general hygiene and making provision for medical education, would be easily secured through the influence of an active state organization. A state fortunate enough to have a medical school should regard it as the center of medical organization, and even more, for the school should be the standard-bearer in promoting as well as protecting all medical interests, and with proper management and methods of teaching should not only lend the incentive for study, but set the example in practice throughout the state.

There are so many reasons as well as advantages in the bigger view of medical organizations and education. What a commendable and courageous act on the part of teachers of medicine who undertook to reduce the number of medical schools and regulate and standardize the work of those remaining, making each school potentially dignified and a credit to the state! The old-time and more narrow view still obtains that medical schools are only for the teaching and training of young men and undergraduates. Far from it. God speed the day when the busy practitioner may enjoy the privilege and feel free frequently to spend a few days in the medical school of his own state, refreshing himself in the newer things,

* President's address, Indiana State Medical Association, at West Baden, Sept. 25, 1913.

with no other expense than the payment of an honest annual state tax, and that he may do this at will, without the embarrassment of feeling himself a subject of charity or an intruder on the officers and teachers. Teaching medicine is and should be a profession and paid for out of state funds as such, so that physicians may at times do a few days' postgraduate work and return to their homes free from any feeling of personal obligation or patronage. State medical schools of to-day are only a part of the state's system of education and represent a public trust, supported by public funds and belonging wholly to the people.

All are aware of the advantages and influence of environment in the treatment of a patient, both medically and surgically, and one of the evidences of medical progress and education is the rapid building up of so many well-equipped hospitals throughout the state, which serve the purposes, first of economy, next the influence in raising the standard of medical work and efficiency, and lastly, the most important, providing a place for the care and treatment of patients in their home environment an aid for good, greatly appreciated by both physicians and surgeons.

The advantages, possibilities, equipment and knowledge of management of such hospitals must of necessity, in no small degree, be obtained from the larger medical centers and schools. Both state pride, personal and professional benefit should make a strong appeal to every medical man in our state organization for the welfare of our school. The present high plane now occupied by our medical schools bespeaks great personal effort, sacrifice and ability on the part of medical men, who first laid the foundation for these achievements. Medical schools should ever be mindful of their duty to the profession and the public at large. To successfully organize and conduct a medical school in a manner to inspire the confidence of the profession and meet the approval of the public, require great personal effort, patience and good judgment on the part of the management, and such schools should be officered by men of influence as moderators and never as partisans. It is rapidly getting beneath the dignity of educational institutions that their officers should be continually compelled to coquette with the state legislature to secure an appropriation of sufficient funds to merely maintain a school's existence. Medical schools, through the influence of their biggest asset—an active alumni—and the good they are doing for the profession and the public generally, should so popularize their work, both in the professional and lay mind, that state finan-

cial support would be forthcoming merely for the asking.

Unpopular and selfish management of medical schools, and an indifferent profession, have been responsible for our own state graduating annually less than 8 per cent. of medical men required to do its practice.

Our state organization should not only be a strong executive force, but the chief avenue through which up-to-date medical knowledge is supplied to every member who avails himself of the privilege and advantages of a membership.

SECTS AND CULTS

Another pitfall in our medical progress and success in practice has been sectarianism. The divergent ideas of therapy of the different sects have done most harm by disconcerting the lay mind as to the relative value and safety of the therapy practiced by each school. Fortunately, all educated sects in medicine begin their study with the same fundamental branches, dividing only on the question of medical treatment. As the veil is being steadily lifted from the secrets of medical science, it cannot be but a short time until there will be but one course of treatment, hence one school. All will be based on physiologic, chemical or biologic lines, and all sects must of necessity become extinct or blended into one scientific school. While a few may still, from purely personal reasons, or supposed business advantages, choose to take their training in the so-called "irregular" school, yet, if successful in practice, they must of necessity adopt a common course in therapy, prescribed by scientific discoveries. Physicians of the same or different schools often do themselves and the profession generally great harm by insisting that the other's methods are wholly without value. The public, not knowing or understanding different methods, loses confidence in both. It is always best to treat your medical associate, when honest and industrious, as a neighbor and coworker in a common cause, and thereby dignify your profession in the estimation of the public, as well as mold the entire profession of a community into one strong, homogeneous and influential unity.

Perhaps it is well not to say much about the cult of Christian Science, though its recent rapid growth cannot but fail to attract attention and call forth some comment. The cause, as well as the lesson to the regular profession, is well worth our study. That Science methods are to be deplored as a means of treating organic disease all know too well, and that followers of this cult often pass beyond the curative stage of an organic

disease is an experience too many have had. Its rapid growth and ardent followers must surely teach the regular profession a much-needed lesson. While temperament, heredity, environment, social dissipation, strenuous business competition and intellectual strife have operated in laying the foundation for neurasthenia as never before, the family physician must assume a great share of the blame for not anticipating the mental element and early safeguarding his patient against its delusions when he was enjoying the patient's full confidence and cooperation. There can be no doubt that many persons first begin in Science much against their will and better judgment, suffering from discouragement and desperation in not getting relief, usually from harmless symptoms, at the hands of their regular physician. It is no exaggeration to say that 95 per cent. of Science followers have first slipped through the hands of the regular medical practitioner. It is no use to decry one's loss or make a tirade against a patient's intelligence because he sought and secured relief from his imaginary ills, or mental disturbance, through the sole influence of faith, though inspired by one most densely ignorant of the first principles of either religion or medicine. Too frequently the symptoms of disease are continued by the idleness of a patient's mind or from acquired habits of introspection or some great mental shock, producing a clinical picture closely resembling those of organic disease, the murmurings only of a perverted brain action or exhausted nervous system. The same may occasionally have been the result of organic disease, the pathology of which had by surgical measures been entirely relieved; but the medical attendant failed to give the proper attention in setting right the line of thought or inspiring his patient with greater faith and hope.

In the treatment of organic disease Science teaching and practice are not only inadequate, but dangerous; though we must admit that justly judged by its success, it at times does good in relieving functional disorders or in restoring the happiness of a home by freeing it of a neurasthenic family pest, or by winning those sick in mind, due to bad environment, or idleness, back to one of independence and activity. While Science is not always to be condemned, and may at times be encouraged, it should, however, in practical application, be most rigidly regulated. Any adult, when in full possession of his mental faculties, should when ill be left free to choose any kind of treatment, but when those demented by age or disease, and children under the control of parents or guardians, are stricken with disease and allowed to die with no more than Science treat-

ment, the parents or guardians should be charged with and convicted of manslaughter and punished accordingly, as is now done in England.

PSYCHOTHERAPY

Two conditions stand out most prominently as sufficient proof of our long neglect in this field of medicine.

First, the oversight of medical colleges in not teaching this important means of treating diseases, and second, the great and rapidly increasing number of both sick and well who have turned from regular, scientific medicine to the various irregular cults and creeds, many of which administer solely to the mind.

Just why medical educators and psychologists should have neglected this important branch of therapy until the evil influence was fully on us, is difficult to explain, and certainly marks one pitfall of the past, if not of the immediate present.

A few years ago a physician contented himself in acquiring a very superficial knowledge of the symptomatic indications for the use of a few drugs, and those usually used were of heroic action. Neurasthenia was not in our medical nomenclature as yet. The tyranny of books, social struggles, the mad speed of the automobile, business and social life were not as yet active in causing morbid mental states, accompanied by nervous symptoms closely mimicking those of organic disease, though only the expression of a functionally exhausted brain and nervous system.

Psychotherapy to-day is an absolute necessity in the treatment of any patient, either medically or surgically. Not alone as a therapeutic measure do we observe its greatest good, but often in holding the patient faithful to a line of treatment, even though only hygienic, or by freeing his mind from fear that he may quietly relax while rational drug therapy is being employed.

How much greater would be the influence, and easier the practice of medicine, if physicians and surgeons as well would, early in their association with a patient, make some effort to secure his confidence, and reassure him by earnest and honest efforts and a bit of tact in analyzing and minimizing his symptoms or the gravity of his illness. It is important, too, that a patient should not be given a vague or wrong idea of the nature of his illness. One should not be evasive in rendering opinions, which should, when possible, be both intelligent and exact, for doubt in a patient's mind with neurasthenic tendencies is frequently the beginning of a physician's trouble. When possible he should early anticipate complications or unfavorable terminations, though not express-

ing them roughly to his patient, thereby maintaining control of his patient.

How often does one err in giving or allowing a prospective surgical case the impression that his suffering is due—perhaps correctly, too—to some definite and frequently palpable pathology, the removal of which will effect an immediate cure. If such a patient has an exhausted nervous system, he proves slow in responding, from possibly having acquired the pain habit, or self-consciousness from long suffering and apprehension. These important points may have been entirely overlooked in the summing up before the operation. Heredity, temperament, environment and personal history are quite as essential to the internist and surgeon to consider in estimating the results, as their knowledge of the disease.

Many psychoneurotics might have been saved their postoperative suffering or stigma if the physician in charge had familiarized his patient with all the facts and early put himself in control of his patient's mind. Too frequently does the medical man lack the courage or tract to early say to his patient that he has a wrong or very exaggerated idea of his ailment, or the great responsibility of his recovery and future happiness must depend largely on his own efforts. Do not dismiss him as having nothing ailing him, if he thinks he is ill; he needs your help and advice in setting his mind at ease; and, too, how frequently have we failed to recognize that latent and minute pathology responsible for his symptoms.

How many postoperative neurasthenies have been forced to accept the belief of a cure by science only because the medical or surgical attendant failed in giving proper attention to his patient's preoperative and postoperative mental and nervous condition. One of the most potent factors in aggravating an already present neurasthenic state is the stereotyped way in which some patients suffering from surgical disease are managed while in the surgery. The care of the mental state is too frequently left to the assistant, who often, for want of experience, appears harsh or indifferent to the patient's finer feelings, or who, for the lack of time or press of business, acts quickly and appears unsympathetic. Apparent neglect in the after-treatment may cause, or at least greatly aggravate the postoperative neurasthenia, producing a state requiring months or years to correct.

Another factor which has contributed much to the neglect of the study of psychology and psychotherapy is the fact that practicing physicians since the advent of antiseptics and the perfection of surgical technique have made such urgent demands for both early and more accurate diagnosis; that

the energies and time of the internist have been largely occupied in studying and perfecting diagnostic methods, and both the medical and psychic treatment have been of necessity, to an extent, neglected.

VACCINE AND SERUM THERAPY

After hearing that remarkable and perfectly illustrated scientific address by Dr. J. Camondon on "The Science of Biology," and seeing the enthusiasm with which Ehrlich gave his advanced ideas on chemotherapy, one is irresistibly forced to realize that in the past many of our therapeutic methods have been both crude and wrong in principle, and that the future treatment of disease must be along chemical and biologic lines in accord with the present-day, well-advanced and established knowledge of the teachings of physiology and biology. Chemotherapy and the use of vaccines and sera will in the near future no doubt constitute our chief therapeutic armamentarium. The intelligent use of a few drugs in connection with hygienic measures will always be necessary and prove sufficient in most illnesses, but the treatment of all infectious diseases must be by the serum or vaccine method, notwithstanding the fact that the ignorant use and abuse of vaccines by the general profession in the past few years has brought on us one of the greatest stigmas in our experience, although marking an advance along truly scientific lines. A few biologic products in intelligent hands have already proved to be of some benefit; but the harm done by their use has greatly outweighed the good. What a sad commentary on the good sense and judgment of the American profession was the glaring advertisement occupying the whole of the back cover of all programs, bulletins and publications of the Medical Congress in London—of an enthusiastic American manufacturing pharmaceutical company, specializing in biologic products, claiming 4,700 recoveries out of 5,600 cases treated by a single product from their laboratories. Only one of two conclusions can be deduced from such an assertion—that it is not true or that physicians presumably furnishing such data to the manufacturer were most ignorant of the indications for the use of the remedy, or wholly incompetent to judge as to what constitutes a cure.

All recognize that very few of these biologic products have an established reputation or freedom from danger in the treatment of disease, though there is not an infectious disease in the whole medical nomenclature that has not had on the market a "sure-cure" in the form of a vaccine or serum, furnished generally by the manufacturer, together with a description of all symp-

toms indicating its use, accompanied by overwhelming proof of its virtues and efficiency; claims so great as not to be exceeded by anything save the price.

One can only say in reference to this pitfall, go slow, although going in the right direction. Let the experimental stage of such remedies be passed, allowing their clinical value and safety to be established in laboratories and hospital wards by those especially trained and qualified to make close and accurate observations. Do not lend your influence to a purely commercial enterprise. Often one of good intent may offer a remedy still immature or in the purely incubation stage, with which a physician in general practice might do great harm. It is to be greatly deplored that so much of our diagnostic and therapeutic knowledge still comes to us under 1-cent postage.

It is to be hoped that medicine will never again contribute to or allow a repetition of what occurred during the first visitation of influenza to America, when Antipyrine attained such a reputation for symptomatic cures. Its extravagant use was only equaled by the evil and disastrous effects it had on the patient's myocardium, in consequence of which this single remedy tolled off a death-rate never before noted in the same length of time, due solely to its damaging effect not being appreciated or understood by honest medical men.

LABORATORY AND MECHANICAL DIAGNOSIS

Our present perfected laboratory and mechanical means of making or aiding in diagnosis bring us so closely in touch with the beauties of scientific medicine as to make them dangerously alluring in the practice, causing us to overlook the practical value of common-sense methods. The thought will come, and the question properly asked, Is there not danger in the young physician, especially early in his practical career, becoming too mechanical and dependent on artificial methods and failing to cultivate or develop broadly his skill as a practical diagnostician? It is quite as essential that one should know the value and application of a laboratory report or a mechanical-made observation, so far as it goes, although alone it may be very insufficient and misleading.

The technic of laboratory methods, as well as the application of instruments aiding in clinical diagnosis, have made the art comparatively easy and oftentimes simple. But the real value of such findings depends on applying and assigning them their proper place and significance in the clinical field.

In the past few years there has been a marked departure from traditional custom that only the men of age and great experience in medicine were competent to do the best work. On account of the advantages in medical training now enjoyed by younger physicians, the young man is now looked on as being much older in medical knowledge and skill at the same age than was his predecessor; hence he is more eagerly sought for in practice than formerly.

But this pitfall too frequently comes in the general summing up of all the evidence after the examination of a patient, and here the experience of the older practitioner soon convinces the younger physician that success in practical medicine requires more than a close working knowledge of technical methods of gathering a few positive, isolated facts. To accept an x-ray report alone as conclusive in a diagnosis might lead one far astray. That a positive Wassermann is a correct explanation of a prominent clinical symptom may lead to a serious error in treatment; a negative Widal at any stage of a continued fever might result in neglect and a fatal hemorrhage, or a negative finding in a sputum examination does not exclude tuberculosis.

To hold a high blood-pressure record before a patient as an explanation of all his symptoms or evidence of his permanent incapacity, is often a grave mistake. The great danger is to the physician who too often is disposed to lack or lose that flexibility of mind and gentleness of diagnostic touch so essential in developing his latent skill as a diagnostician. One with a close familiarity with such means of diagnosis is sure to be a better clinical observer, and the use of such aids in diagnosis is also a great incentive and stimulus to do more thorough work, though a tendency has been for too many physicians to develop or claim proficiency in a single line, thus specializing in only one method of diagnosis. How often do we see patients on what might be called a medical tramway, being passed along from one examiner to another for special observation, there being too often a lack of good team-work on the part of the various examiners.

In the diagnosis of some diseases such a procedure may be necessary, but we should not forget the possibility and danger of losing the confidence of a patient while pursuing such means. Patients after long and nervous waiting in a physician's office are sent to another and possibly a third, each detaining him and adding to his anxiety by continued delay, or frequently painful methods of examination. In the end there is not infrequently a difference of opinions among the examiners, and the patient is asked to wait and later return again.

The patient properly feels, as well as the home physician, that after spending much time and money he should have a positive diagnosis given him. In this way many of our worst neurasthenics get their education in self-consciousness and introspection. While such an ordeal is often necessary in practice, it certainly has its dangers. One should always bear in mind the great importance of dismissing a patient feeling as nearly satisfied as possible with not only the examination, but with the logic of one's conclusions, and that he had secured one's best individual efforts.

It is while making a diagnosis, by whatever methods, that a physician should establish himself in the right psychologic relations with his patient, so that when the time comes for the crucial test of his skill as a successful practitioner, it will be measured by the control which he develops over his patient, making him strong in his subsequent psychologic management by either suggestion or persuasion, as he may choose.

The summing up of all the diagnostic evidence obtained during an examination and consultation marks the delightful as well as the important part of one's work. Here the physician often finds his skill pitted against an irritable or sick mind, which has no sympathy with and little knowledge of the worth of scientific methods. Often the physician is forced to common-sense methods of both diagnosis and management. The rendering of a final opinion, and the final summing up, is equally or more essential, in some instances, than the approved methods of making accurate laboratory observations. Never give a patient unnecessary physical or mental pain, but keep before him that which is tangible to the lay mind, unconsciously on his part, inspiring hope and confidence.

One should remember that the evolution of our diagnostic methods has been quite recent, and until thoroughly established in the confidence of the public there is danger of overdoing in our efforts for accuracy in artificial diagnosis.

FEE-SPLITTING

For from the least of our dangers or pitfalls is fee-splitting, so common and so loathsome that it amounts almost to a medical pest. While a practice presumable more common among younger physicians, yet we see not a few of the sages of medicine who have long enjoyed the confidence of both patients and community selling their birthrights to medical honor for a few tainted dollars. The cause of this nefarious practice is at present almost as difficult to explain as to prescribe the remedy. For the family physician or general practitioner to blame the surgeon, or the surgeon

to charge the wrong to the physician, is quite like the skillet calling the pot black. It requires the willing consent of two, and either the physician or the surgeon alone could stop this dishonest practice if he but chose to do so.

The various means and methods employed in fee-division make the curse all the greater, for many are tempted into this field of wrongdoing by using methods which they try very hard to persuade themselves to believe makes the act justifiable and fair; that the bulk of the sin was committed by his associate; or the surgeon feels that his conduct toward the poor, helpless family physician was really an act of true philanthropy. That fee-splitting is always inspired or prompted by selfish motives and evil intent no one can doubt. It is a great wrong by whomsoever practiced, as it means the taking of money from the patient without his knowledge or consent. That there is a want of equity in the compensation received by the medical man and the surgeon is perhaps true, but the family physician who is not sufficiently self-respecting to be honest has no more claim to the confidence of a patient than the surgeon who so willingly offers to share his fee.

The very thought of fee-division effaces the claim of the two prerequisite qualities in every physician, namely, frankness and honesty. That a few surgeons are willing to divide fees with their weaker brethren and patrons from a sympathetic motive is possible, but as a rule deep in their hearts the undertow of their natures show them to be both selfish and mercenary. Often a family physician tries to justify his action by insisting that his income for the amount of work he is required to do is not sufficient to provide bread and butter. Surely, any physician who so acknowledges his inferiority is neither qualified by nature nor education to be a physician in practice, and the sooner he is eliminated the better.

What might be called "boot-legging" is the worst method of all in fee-division. A surgeon, often of ability, caring little for his earnings, generally with loose and extravagant business methods, too often with an air of honest indifference, tells the family physician to make a charge as he sees best, and to send him his pay when convenient—that any amount will do; thus by allowing another person to place a value on his services and handle the entire finances, a potential wrong is created that at times cannot but tempt even an honest man. Such a one does great harm, not only by his methods, but by his example as well. His only ambition is to do a big volume of business, make statistics, have various case reports and pose as a wonderful success. This makes the be-

ginner in a specialty feel there is little hope for his success against such odds, and many a young man who at first starts with the right ethical ideas, feels, unless blessed by some special advantages, that he has no show against such competition—slowly becomes discouraged, then desperate, and starts an irregular professional career.

The practice of fee-splitting no doubt has been encouraged to a great extent by the exodus from the ranks of general medicine to the more lucrative and satisfactory field of specialism, particularly in surgery, thus depleting in a way the standard of talent in general practice. Specialisms of all kinds have recently been flaunted too much before the public, in a most spectacular fashion, and, while without intent, have in the minds of the laity cast much discredit on the work of the general practitioner.

One means by which this evil may be corrected is by better educating and training the general practitioner, and too often the family physician is in doubt, yes, in fear, as to just the kind of consideration his diagnosis will receive at the hands of the consultant, who too rarely has not a word of praise for the family physician's honest efforts, which only need to be an open expression of the great difficulties, or impossibility of making an early or correct diagnosis, which at the time of consultation may have reached a state where it was easy and simple enough.

That the family physician makes the greater number of mistakes is quite natural owing to the great number of patients with various ailments he is obliged to see within a limited time, and often under adverse conditions for making a correct diagnosis. How often he fails to get credit from any source for his good intentions and hard work! Fee-division is a much greater crime than merely taking of money under false pretense. It too often means the bartering in human lives, for as soon as the choosing of a surgeon becomes a question of fee-division with the family physician, then skill and ability are put into the background, and the incompetent and the dishonest come together, not working for the best interest of the patient, but solely to help each other make money. The sovereign remedy for this dishonest and disgraceful practice is publicity. The wrong is not alone confined to the man actually engaged in such practice, but is shared, and rightly so, by the profession at large. Heretofore there has been too much secrecy observed in discussing this evil, and too much of a disposition on the part of those opposed to such a practice to protect the ones they know to be guilty.

One thing is certain: either the profession is going to eradicate this evil and those practicing it,

or the public will, as soon as in possession of all the facts, demand legislative enactment which will reach and punish such offenders, no odds what their methods of practicing such a crime. Hence I feel it my official duty to make a strong appeal to the whole medical profession of our state to help weed the offenders out of our ranks and save our grand and noble profession from the ignominious position of public discipline.

ORIGINAL ARTICLES

ACUTE POSTOPERATIVE INTESTINAL OBSTRUCTIONS *

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The greatly improved and excellent technic of abdominal surgery of to-day has almost annihilated obstructions following clean cases, operated on by painstaking, experienced operators. This is especially true of the mechanical type, which is most usually due to the formation of adhesions. It is surprising, however, how extensive adhesions will sometimes disappear after abdominal operations. Yet as this is frequently not true, it is a very unreliable basis to work on, and therefore should by no means stand as a shield for those who are inclined to be careless while working within the abdominal cavity. There are times when we must do much handling of the viscera, but it can be done gently. In simple interval appendicectomy very little of the bowel need be exposed, but if necessary to do so for further examination, we can always keep it well protected.

There is one type of ileus with which every operator will meet who does abdominal work. I refer here to the obstruction not due to the mechanical means, but to the adynamic or paralytic type, which is prone to follow severe abdominal operations, and although rarely yet may be a sequel to a minor or slight pelvic operation. This latter type we cannot hope to eliminate, but by following some principles which will be referred to later in this paper under prophylactic treatment, the number of cases can be greatly decreased.

We may conveniently class postoperative obstruction, as to time of occurrence, as primary and secondary. No fast line could be drawn between the two classes, but I should consider

* Read before the Knox County Medical Society at Vincennes, Ind., May 13, 1913.

an ileus, occurring after the patient had completely recovered from the primary operation and had regained his normal strength, a secondary obstruction, occurring from three to five weeks after operation.

It is what I term the primary ileus, then, that gives us the greatest concern. The adynamic type, coming on as it often does before the patient is entirely free from the after-effects of the anesthetic and the operative shock, throws the patient from bad to worse, the great distention causing much pain and restlessness when rest is needed so badly. If the distention is extreme, the tension on the sutures may cause them to cut and delay, or prevent entirely the union of the wound, which will usually open up, more or less. This will invariably necessitate a secondary closing of the wound.

The mechanical type of ileus is a little more conservative, generally, by waiting from one to three weeks or longer, thereby giving the patient a chance to at least have thoroughly overcome the primary operative shock. Obstructive symptoms may, however, appear within twenty-four to forty-eight hours following the operative procedures, when adhesions were present before the abdomen was opened. One of the most treacherous sequellae occurring in abdominal surgery is a creeping and almost symptomless, mechanical obstruction, appearing in the third or fourth week, following a perfectly clean operation and the convalescence having been exceedingly smooth until then. I recall a case of a middle-aged, robust woman on whom an abdominal hysterectomy was done, during my internship at Tennessee Hospital. This patient could not have made a more beautiful convalescence up until Thursday morning before the Saturday on which she was to go home, which would have been three weeks from the day of the operation. The day before her trouble she walked about the hospital. She began vomiting just after midnight on Thursday morning, and continued vomiting until Saturday morning, about 1 o'clock, when she died. She complained of nothing other than the emesis, which seemed to disturb her but little. We were able to get a fair bowel action by enema. There was never any pain, unless it occurred during her unconscious period, which began about eight hours before death. We were at a loss how to account for this so sudden and calamitous change. The post mortem revealed a band of adhesion constricting a loop of intestines at the stump of the cervix. This patient may have been one of those rare individuals who seem to have an idiosyncrasy toward the formation of adhesions following operative procedures, even at the sites

which appear perfectly free from peritoneal abrasion. Unfortunately, adhesions in this class of patients, instead of disappearing with time, as is so frequently the case, seem to have a decided tendency to increase steadily in strength. Therefore there is very little chance for these patients to escape an obstruction when once the intestine is partially or wholly surrounded by an adhesion; while in patients free of this tendency, an obstruction may be avoided by Nature absorbing the offending band and freeing the gut before the lumen is sufficiently encroached on to produce symptoms. We are still at variance as to the cause of this peculiar idiosyncrasy toward adhesive formation. It is in no way dependent on the virulence of the infection or the degree of traumatism. Therefore to prevent calamities of this nature it greatly behooves the surgeon to use every precaution against septic and traumatic lesions of the peritoneum and the abdominal viscera.

The etiology of the adynamic type is a paralysis of the nervous mechanism controlling the musculature of the gut. This may be due to exposure of the intestine, during a lengthy operation, to the air, hence a chilling of the gut; or to trauma caused by rough handling and packing with dry gauze; or incorrectly-placed packs which must be frequently replaced; local sepsis from faulty technic or failure to thoroughly dam off the healthy tissue from a small infected surface; general sepsis from rupture of an infected cyst, etc.

In the mechanical type, we may, first, include all the causes mentioned under the previous type as tending towards the formation of adhesions. Second, rotation or volvulus due to adhesions from abraded surfaces or inflammatory zones. Third, adhesions due to hematomas formed by incomplete control of hemorrhage. Fourth, compression or angulations due to misplaced tampons. Fifth, volvulus around old intestinal or omental adhesions when the gut had been disturbed unnecessarily, or no effort has been made to replace them in their normal position relative to such adhesions. Sixth, strangulation in openings or rents left in the omentum or mesocolon (posterior gastro-enterostomy). Although this type of obstruction is more frequently due to pathological conditions existing before the operation than to the operation itself, yet as we improve our operative technic, so in a direct proportion will our obstructive troubles decrease in our clean cases and especially so in those complicated by adhesions, pus or a combination of the two.

PATHOLOGY

In the adynamic ileus the entire intestinal canal is affected. The walls are distended with liquid and gas, and are much congested. As far as the nervous motor mechanism is concerned, the gut is dead, peristalsis being entirely absent.

The pathology of the mechanical type varies greatly according to the location and cause of the obstruction. The adhesion may be broad, extending several inches along the intestines, which type less frequently causes acute trouble; or it may be narrow, acting like a ligature around the tube, ligating, as it were, the gut completely and frequently causing early necrosis from cutting off the blood-supply. Should the band not shut off the fecal flow by contracting down on the gut, it may, by pulling on its site of attachment to the intestine, cause a kinking, thereby narrowing the lumen until an obstruction is formed by the contents damming up the small passage. A coil or knuckle of intestines may be caught under a band of adhesion, extending from one viscus to another, or from a viscus to the parietal wall, the obstructive element having no direct connection whatever with the affected bowel. An adhesion producing a kink in the gut may be present for a long time without giving the least trouble, but at this situation there is a constant damming back of the intestinal contents and more or less dilatation of the gut above the angulation. At any time during its presence this heavily-loaded bowel, from gravity alone or promoted by some movement of the body, may fall over the kink, causing an acute obstruction.

The omentum may become adherent to some operative field in the lower abdomen or pelvis, and by dragging down on the stomach cause a kink and obstruction of the duodenum. Following a general peritonitis, nearly all the small intestines may be matted together, and also adherent to the colon and other viscera, but fortunately many of these cases never develop obstruction.

The more fixed portions of the intestinal tract will tolerate adhesions more than the movable, for here the gut is not easily kinked, and only through the constricting power of the adhesion is the function of the gut greatly disturbed. Two portions of the small intestines may be bound together forming a short loop. With the site of this adhesion as a pedicle, the gut is easily twisted on itself, causing a volvular obstruction. The most usual site of obstruction is in the pelvis and at the appendix region, due no doubt to the fact that these portions of the abdomen are most frequented by the surgeon.

Soon after the obstruction is complete, as a result of the circulatory disturbance, we get a venous hyperemia, hemorrhage, edema and destruction of the epithelium of the gut wall, especially just above the obstruction. The toxic contents and bacteria are in this way enabled to more readily pass through the distended gut wall.

SYMPTOMATOLOGY

The adynamic symptoms may begin twenty-four to forty-eight hours after the operation, but usually follow immediately afterward. There is absolute constipation; sometimes incessant vomiting. There is great prostration with rapid and usually feeble pulse, often inability to pass gas or feces for days, which finally ends in death, if not relieved. By the forty-eighth or seventy-second hour the symptoms become rather urgent, but may be alarming a few hours later. With the stethoscope on the abdomen no gurgling sounds are heard.

In the mechanical type, the vomiting may be the first symptom, which is usually due to gastro-intestinal overflow. This symptom is very rarely absent, although its time of appearance may vary with the situation of the obstruction, beginning usually early in those appearing high or near the pylorus, and late when the trouble occurs near or at the sigmoid, and seldom *vice versa*. Distention of the gut above the obstruction with gases, is due to the fermentation of the retained intestinal contents. The distention of the abdomen will usually vary in direct proportion to the distance the obstruction is located from the pylorus.

The impression on the nervous system may vary all the way from a slight shock to a collapse, the latter appearing usually about the third to the fourth day. This, however, occurs earlier in volvulus than in any other obstruction. The amount of nervous depression found is dependent on the length of time the pathology has been allowed to remain uncorrected or the patient unrelieved. If the trouble is near the pylorus, we may have profuse perspiration with a diminished quantity of urine. Here also the stomach only is dilated and bowel action can be obtained by enemas. It depends on whether or not the obstruction is above or below the ampulla of Vater as to the appearance of the bile in the vomitus.

The vomited material in all cases of obstruction is first mucous, then bile stained (if trouble is below the common duct opening), and later fecal. Vomiting appears very late and often not at all in sigmoid ileus and the abdominal disten-

tion is greatest. This symptom may begin rather innocently, but constantly recurs and at shorter intervals, until it becomes continuous. This symptom occurs early, more frequently in obstruction due to adhesions than in any other type, except volvulus.

The pain at first is colicky in character and located so distinctly at the obstruction that the patient can usually locate the trouble for you. The pain is caused by the internal pressure of the contents, due to the peristalsis of the intestine, trying to force the contents past the obstruction. Therefore by the third or fourth day we find the pain subsiding, from the cessation of peristalsis, due to paralysis of the gut. There is greater pain and the pulse is more rapid than in the adynamic type, yet the pulse is not as rapid as in peritonitis.

If the abdomen is thin, the exaggerated peristaltic actions of the distended intestine above the obstruction are plainly visible; they may be started or increased by light tapping on the abdomen. A reverse peristaltic movement may at times be noted. The temperature is usually subnormal, while in peritonitis it is always elevated. An enema may get a little fecal matter from below the obstruction, and for this reason we should always examine the movements and not take the nurse's word for the amount. Do not be deceived by gastric lavage stopping the emesis for a short time, for it often does, only to recur as soon as the stomach refills. The history of a previous operation must always be borne in mind, and especially if a septic area was drained.

DIAGNOSIS

This has been summed up in the previous symptoms and need not be repeated. In a typical case the diagnosis is not difficult, but it sometimes becomes one of the most perplexing problems in surgery. If a diagnosis of adynamic ileus has been made and treatment instituted along those lines for a limited time with no results, do not hesitate to reopen the abdomen for mechanical obstruction. Avoid allowing the case to go to the stage of capillary cyanosis of the gut, for if you do, your case will usually terminate fatally, promptly following the operative interference. Here, as in all other obstructions, always examine all the hernia openings.

From my personal experience with these cases, I would say that there may or may not be a leukoeytosis. The opinions of some of our best authors differ on this, some claiming the count to range as high as 20,000, while others claim there is no leukoeytosis.

PROGNOSIS

The prognosis in the adynamic type is usually good with heroic treatment. That of the mechanical type is nearly always fatal if not operated on, and especially is the outlook bad if due to adhesions, for there is no hope whatever for a spontaneous cure. The percentage of recoveries in the operative cases is in indirect proportion to the number of hours the patient is allowed to go before operative means are resorted to. In a study of 288 cases of acute obstruction, Dr. Naunyn found that 75 per cent. recovered with laparotomies on the first and second days, but that only 35 to 40 per cent. recovered when operation was delayed to the third day. Here we see that the mortality was more than doubly increased by a delay of only a few hours, hence in mechanical obstruction the prognosis depends largely on our ability to recognize the condition in the early hours of the outset and our immediate action when the diagnosis has been made.

The following four cases came under my observation while I was associated with Dr. W. D. Haggard at Nashville, Tenn., and the fifth while I was House Surgeon at Tennessee Hospital.

CASE No. 1.—Mr. J. H. was shot with a 38 caliber Winchester rifle, the ball entering the right hip, going through the ilium, piercing the bladder wall in two places and making its exit about three inches below the umbilicus. The patient was in a stooping position when the shot was fired. He reached the hospital about four hours after the accident occurred. On opening the peritoneal cavity, we found there was no intraperitoneal injury whatever. Following down the tract of the bullet to the upper bladder wound we closed the hole in the vesical wall and placed a drain at the site of the closure, also placed gauze wick in wound of entrance. The patient was shocked before the operation and more so afterwards. The operation was performed about 4:00 p. m., and the next morning the abdomen was very much distended. The distention increased as well as all the other ileus symptoms, and by the end of the seventy-second hour his condition looked hopeless in spite of the fact that all the treatment that could possibly be instituted had been heroically carried out. We were positive we were dealing with an adynamic ileus and diligently continued that line of treatment. On the fourth night his bowels moved several times and the patient was in a remarkably better condition the next morning. The extreme distention caused the sutures to cut and the abdominal wound to open, which, because of infection from the leakage of urine on the dressing, could not be closed. But to our great surprise, it closed by the end of the sixth week by granulation, meantime being held together with adhesive plaster.

Had this patient had the routine preparation before the operation there would doubtless have been no ileus, but the shock of the bullet, following close after a full meal, and that of the operation added to it, although the intestines were not handled whatever, was enough to paralyze the gut, and being already loaded with fecal matter ample means were afforded for the rapid formation of gas, which still further hindered the nerve mechanism.

CASE No. 2.—Master C., aged 9. Was operated on April 18, 1912, for appendiceal abscess. Abscess drained. Following the operation he did exceedingly well and was able to leave the hospital at the end of the third week with the wound healed. One week after he returned home the family physician was called and found the following condition: Colicky pains in right side of abdomen, some distention, had vomited about three hours after pain began. He gave a purgative which was soon vomited, then resorted to enemata with no result. In twelve hours from onset, patient vomited fecal material and still continued to do so when he reached the hospital twenty-four hours later. Temperature 101 and pulse 140. A mass was easily felt below and to the right of the umbilicus.

We opened the abdomen at once and found an adhesion of the abscess wall, kinking a loop of the small intestine. The gut was freed and the abdomen closed without drainage. An alum enema was given as soon as the patient reached his bed and repeated in one hour with good results. He received some salts the next morning, which acted once. The following evening the bowels moved twice from a dose of oil. The temperature went up to 102 the first day following the operation, but by the third day it was normal and remained so. We did not empty the distended intestine above the obstruction, as the distention was not great and the patient did not present a toxic picture, but an effort was made at an immediate action of the bowels to throw off what toxic material there was stored up in the gut.

CASE No. 3.—Mr. B., aged 21. Came to hospital March 29, 1912. Three years ago he was operated on for appendiceal abscess. Abscess drained and appendix left in. Following the operation had fecal fistula for six weeks, which healed, leaving the patient with hernia. Had no trouble then until two months ago. During these last two months would have colicky pains below the umbilicus, which would last for a few hours only, and never severe enough to stop him from his work on the farm. March 27 began with sudden severe cramping pains in usual site about 10:00 a. m. He ate some dinner which seemed to increase the pain. A few minutes after dinner he vomited everything he had eaten and continued to vomit every fifteen minutes to one hour until about noon March 29. Fecal vomiting began the night following the onset of the pain and con-

tinued until the vomiting ceased. The abdomen was much distended. His bowels acted the last time about two hours before the pain began. Purgatives were vomited immediately. Enemas were given every two hours with absolutely no results. The temperature had been 97 until he reached the hospital, when it registered 102.

A diagnosis of acute intestinal obstruction of the adhesive type was made, and the abdomen opened at once. This was about sixty hours after the onset of the symptoms. An adhesive band obstructing the gut was relieved and an enterostomy performed. A retention catheter was fastened in the gut opening for temporary drainage and the abdomen closed with drainage at the side of the catheter. The catheter was removed on the fifth day and there was no drainage after the third week. The bowels moved normally by an enema following the removal of the catheter.

This obstruction evidently had been slowly forming since the appendiceal trouble, and the light attacks were caused by the difficulty of the peristalsis of the intestines to force the partially dammed-back contents past the obstruction. There was never a complete stasis at this point, until the last severe symptoms appeared. Here Nature failed to absorb the adhesion before it caused trouble.

CASE No. 4.—Mrs. R., aged 43. July 12, 1911, had cholecystectomy for gall-stones with one lodged in cystic duct. At the end of the second week she was out of bed and walked about the hospital one or two days before going home at the end of the third week. On her way home she vomited twice on the train, and continued to be nauseated and to vomit after reaching home. That evening (Tuesday) her physician called Dr. Haggard by phone, but as she had no other symptoms he thought it was due to the roughness of the train. This suggestion evidently continued foremost in the doctor's mind, because we did not hear from him again, although the patient continued to vomit, and by Friday the vomitus became fecal and that night she died. A post mortem was not allowed, but it was undoubtedly an obstruction near the pylorus, as there was very little fecal vomiting and scarcely any distention.

CASE No. 5.—Mr. S., aged 28. Operated on Nov. 10, 1910, for acute suppurative appendicitis with tube drainage. This patient did exceedingly well until on the morning of the 18th, when he began suffering very much with a cramping pain at the umbilical region. There was moderate distention. The following night the patient was very restless and the next day the pain gradually grew worse. We were unable to obtain a bowel action. He vomited twice during the day, stomach lavage following each vomiting attack. On the morning of the 20th all the symptoms were very much worse. Temperature now was 99. Pulse 118. A diagnosis of adhesive obstruction was made and the abdomen was reopened imme-

diately. The patient's condition was such that prolonged operative procedures would have been extremely hazardous at this time. Therefore, with gas anesthesia, a small incision was made at the site of the obstruction and the first distended coil of intestine presenting in the wound was incised and a retention catheter inserted and retained in place by a purse-string suture for the primary drainage and the abdominal wound closed. The patient reacted very nicely and there was considerable drainage through the catheter for the following five days. The bowels moved normally on the sixth, and on the seventh day the catheter was removed. The wound drained a little for three or four days and closed. This patient was seen about eighteen months after leaving the hospital and said he had had no trouble whatever during the interval.

This no doubt was a case where the adhesion had kinked the intestine, partially cutting off the fecal current. The overloaded bowel above the kink had fallen over and caused the obstruction to become acutely complete. By draining the intestine above the obstruction, the gut was permitted to right itself again and remained so, or at least long enough for the primary cause of the ileus to be removed by Nature.

It is true we were running some risk of being compelled to open the abdomen the third time, but this would have tided him over until his condition was such that anything could have been done which was necessary, while at that time the simplest procedure was accompanied with great risk.

TREATMENT

With the modern preparation of the patients the adynamic ileus has greatly decreased. When some of our surgeons learn to handle the intestine more gently, expose them less, protect them more thoroughly, when exposed, from suppurative foci, and to so place abdominal packs that they will accomplish their function without the necessity of replacing them several times during an operation, we will very seldom hear of this type of obstruction, except following unprepared emergency patients; and ileus belonging to the mechanical type will be less frequent.

As a prophylactic against adhesion, which is the principal cause of the mechanical ileus following operative measures, we must repair all broken peritoneal surfaces, do as little wiping of the peritoneum with dry gauze as possible, use moist packs, avoid all violence with retractors, leave no bleeding to form clots, which may form adhesions by their organization, avoid healing by granulation which terminate in adhesion, and use good judgment in tearing down adhesions already formed. If we can operate before pus is formed so much the better, but after pus is present, the

selection of a proper drain and the correct placing of that drain will often eliminate the tendency toward obstructive adhesion formation. By dissecting away some tissue from a benign growth, or organ to be sacrificed, which is adherent to the intestine, we can prevent damaging the peritoneal covering of the gut.

Until recent years an enterostomy was always performed with the idea of establishing a permanent fistula, but this has been abandoned for the temporary drainage operation. Temporary patency was first recommended by Lewis in 1757, but made no impression on the profession at that time. Nelaton revived the idea in 1840, only to be criticized by Treves and others, who denounced it on the grounds that it was a rough operation. It is now recognized as a life-saving procedure in selected cases.

It depends entirely on the condition of the patient as to the mode of procedure in acute obstruction. If the condition is such that a general anesthetic is contra-indicated, we may under local anesthesia, through a small incision, place a retention catheter in a distended coil of gut and establish drainage, thereby saving the patient's life and tiding the case over until conditions are favorable for a radical cure. It is wonderful what a change for the better there is in a few hours after the drainage is established.

In cases that undergo an anesthetic the obstruction can be relieved by the necessary procedure of that particular case. But in most cases, especially those which have gone more than forty-eight hours, it is dangerous to be content with that alone, for as soon as the obstruction is relieved all the toxic substance of the distended gut rushes into the empty portion below, and the patient will frequently be overwhelmed by the rapid absorption of the highly toxic liquid. This can be prevented, however, by draining this distended bowel by one of the following methods before the obstructive agent is removed: First, in the more desperate cases, where time is a very important factor, a retention catheter may be used, which will drain off most of the material. This is the quickest and gives excellent results, although here some of the contents pass into the gut below; yet Nature is always able to take care of her share of the work. Second, the distended intestine may be gathered over a glass tube, which has a rubber connecting-tube leading to a basin. By gathering the gut over this tube, as the intestine of the hog is gathered over the nozzle of a sausage stuffer, all the contents are drained out through the connecting tube into the basin. The gut may then be closed in the ordinary way of closing rents in the intestinal wall. This pro-

cedure has been condemned by some who claim the glass tube passing through the intestine may injure the mucosa. This would depend, of course, altogether on the dexterity and gentleness of the operator. Third, instead of gathering the gut on the glass tube an aspirating apparatus may be attached to the tube and by inserting it into the gut a short distance, the contents can be drawn out by suction. Here, as in the preceding operation, the intestines may be closed.

If the retention catheter is used it is usually withdrawn in from three to seven days, and the fistula seldom drains but three or four days following the removal. The fistula closes spontaneously. While the catheter is *in situ*, should the patient be unable to retain nourishment by the stomach, we can feed through the catheter. Should the drainage be retarded by blocking of the lumen, it can be unchoked by forcing salt solution through it. The drainage of the distended gut must be considered in every acute obstruction, and the obstructing element dealt with as is indicated by the pathology found. No surgeon is ever sure of what he is going to find in his obstructed abdomens, but he must be prepared to do whatever is indicated, and do it rapidly if he expects to keep his mortality low in this class of surgery.

La Plante Building.

TUBERCULOSIS OF THE APPENDIX *

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For some time previous to the institution of this brief review on the subject of "Tuberculosis of the Appendix," the writer had rather formed the conception that possibly this lesion was more commonly encountered than recognized and reported. To confirm or correct such notion, as well as to pursue somewhat further the study of a most interesting case reported by Dr. Porter in the *INDIANA STATE JOURNAL* for March of this year, and which it was my fortune to observe with him, these few data on the subject were gathered. This case may be recalled by some of you as one of the ulcerative variety of ileocecal tuberculosis with involvement of the appendix, and which did not respond to diagnostic injections of 5 and 10 mg. doses of old tuberculin given at four-day intervals. This corresponds with the experience of Murphy, who reports in the October, 1912, number of his *Clinics* three cases of pronounced bowel tuberculosis which

gave a negative response to diagnostic tuberculin injections. Whether or not he considered these lesions sufficiently extensive and active as to so embarrass the formation of antibodies as to preclude a reaction, he does not state. In this patient, however, we felt that we could consider the chest lesion a closed one, and with a temperature of only 99 degrees and a good appetite, it would seem that her resistance should have been sufficient to produce a reaction. It is possible that the activity of the lesion itself rather than its apparent constitutional manifestations should be the basis of measuring immunity changes in bowel tuberculosis. That the lesion in the bowel was a decidedly active one is shown both by the macroscopic appearance of the specimen (which has been previously exhibited to this society) and in the very typical sections reported on by Dr. Rhamy as showing multiple tubercles in the mucosa, submucosa and fibrous tissue, as well as abundant tubercle bacilli in the sections and in smears of the pus from the surface. Despite the rather extensive regional lymphatic involvement, this woman made a very satisfactory recovery from her resection and left the hospital markedly improved, such improvement continuing most satisfactorily until last March, four months, only to contract a severe attack of the grip and succumb to broncho-pneumonia, according to her physician, Dr. Bechtol. Very probably her fatal pulmonary lesion was tuberculous in origin and represented a rekindling of her old chest lesion, which in turn was the antecedent of her bowel infection. Whether the infection of the appendix antedated that of the cecum no one can say, so that it would be difficult to classify this case as belonging strictly to either primary tuberculosis of the appendix or as involvement of such structure secondarily to an ileocecal or even the pulmonary tuberculosis.

Regarding the frequency of primary tuberculosis of the appendix, there is a rather wide divergence of opinion. In five hundred necropsies made by Letulle on tuberculous subjects, the disease was present in 144; in 91.6 per cent. there was tuberculosis in the cecum, but this does not represent the relative percentage in surgical cases, for, according to Murphy,¹ by taking the combined statistics of various operators, it is found that of one hundred cases of appendicitis not more than one or two are tuberculous.

We are accustomed to regard the lesion in the appendix as either primary or secondary, the latter due most commonly to direct extension from the cecum or ileum, or to transplantation from some distant organ, usually the lungs, in which case the tubercular lesions may be dis-

* Read before the Fort Wayne Medical Society, Sept. 16, 1913.

1. Keen's Surgery, iv, p. 761-763.

seminated throughout the entire intestinal tract, or may be limited to the appendix. Regarding this point, Kelly and Hurdon² declare that in most instances the affection of the appendix is part of an ileocecal tubercular process, the disease, as a rule, probably originating in the cecum and extending by continuity of structure to the appendix. They admit, however, that the appendix occasionally presents the more advanced lesions, and submit that it may be impossible in some cases to determine which organ contains the primary focus of infection. On this very point hinges the difficulty of determining the correct answer to our query concerning the frequency of primary tuberculosis of the appendix. In his answer to my communication making such inquiry from him, Brewer of New York well says: "I do not recall having seen tuberculosis of the appendix independent of a tuberculosis of the cecum. I have operated on a number of cases of ileocecal tuberculosis which may have had their origin in the appendix." Indeed, according to Eisendrath,³ in making a diagnosis of primary tuberculosis of the appendix, it is not necessary for the microscopic examination of the appendix to reveal a tuberculous focus, since the bacilli may pass through the intact mucosa into the lymph nodes of the appendix region. In the conclusions of an article read in the surgical section of the International Congress for Tuberculosis in 1908,⁴ on the subject of "The Acute Forms of Abdominal Tuberculosis," the last-named author lays particular stress on the acuteness which the attack may manifest, as well as the frequency of the involvement of the ileocecal nodes in primary tuberculosis of the appendix. His conclusions are worthy of complete recital:

"1. A primary tuberculous appendicitis is not as rare an affection as was formerly thought.

"2. Such an infection can be followed by secondary involvement of the ileocecal lymph-nodes which is out of all proportion to the pathologic changes in the case.

"3. In the majority of cases there are evidences of tuberculous foci in the appendix, but secondary lymph caseous nodes may be found without visible macroscopic or microscopic tuberculous changes.

"4. Butter, milk and cheese from tuberculous cows are the chief sources of infection in primary intestinal tuberculosis.

"5. In a fair proportion (27 per cent.) of the twenty-nine published cases of tuberculous appendicitis, the clinical picture resembled an acute non-tuberculous appendicitis. No statistics are

available to estimate the proportion of tuberculous peritonitis which begins acutely, but it is larger than is usually thought.

"6. Through early diagnosis and radical removal of the tuberculous appendix and infected lymph-nodes (as far as practicable) complete and permanent cure can occur. Some of the cases of ileocecal tuberculosis and of tuberculous peritonitis may thus be avoided through removal of the probable starting point."

In this article he cites the statistics of Bruner, which included all the published cases in which appendectomy had been performed up to that time. Adding to these the seven that he himself had collected, he makes the statement that of these fifty-eight patients over one-fourth, that is, sixteen, had symptoms which in every detail resembled an attack of acute appendicitis. He also quotes the studies of Fenwick and Dodwell, who found that the appendix was the only portion of the alimentary tract involved in seventeen of 2,000 autopsies on phthisical patients. Again, Leseur, in 144 examples of tuberculous appendicitis observed at autopsies of phthisical patients, found no other lesion than that of the appendix in twelve.

Through his pathologist at the German Hospital, Dr. Pfeiffer, Dr. John B. Deaver was kind enough to send me his statistics from September, 1902, to the middle of January, 1913, covering 7,610 cases, in which tuberculosis of the appendix was encountered in 16 cases, a little more than once in every 500 routine cases. In only two of these sixteen cases is there made mention of the simultaneous involvement of other abdominal structures than the appendix, the peritoneum in one case—and this is very probably secondary to the lesion of the appendix—and the tubes and ovaries in the other case. Two of these sixteen cases showed acute exacerbations, one of which was suppurative in type.

Murphy's reply was to the effect that although he had not checked up his cases for a long time, his estimate, based on his experience, would be that the frequency of primary tuberculosis of the appendix is less than 1 per cent. In an accompanying reprint on "Tuberculosis of the Alimentary Canal and Peritoneum," he states that although he has never seen a case of general tuberculosis of the peritoneum from a perforation of the appendix giving a surface tuberculosis, yet he has seen extensive peritoneal tuberculosis of the second degree type, with no evidence of direct perforation and no evidence of tuberculosis anywhere else except in the appendix.

McCarty, in charge of the fresh-tissue laboratory at the Mayo Clinic, replies that in the careful examination of five thousand fixed specimens,

2. The Vermiform Appendix and Its Diseases, 1905.

3. Surgical Diagnosis, 1909, pp. 303-4.

4. Journal A. M. A., Jan. 23, 1909.

and, during the last year, 1,848 fresh specimens, tuberculosis of the appendix was not seen. He admits, however, that serial paraffin sections were not made.

These statistics hardly tally with those of W. J. Mayo himself, who, in 1909,⁵ in discussing the subject of localized tuberculosis within the abdomen, reported fifty-four cases, or 1 per cent. of the total number of appendectomies, wherein the seat of the tuberculosis was in the appendix, but in these the cecum was nearly always involved at the base and was extensively removed. Many of these cases were apparently the original focus of an extensive tuberculous peritonitis. In the same paper he discusses the greater freedom with which they now resect these cases as contrasted with their former operative procedures. He says that whereas formerly many of such cases were regarded by them as inoperable, often difficult to distinguish from carcinoma, wherein only palliative operations of exclusion were made, irremovable lymphatics being looked on as a contra-indication for resection, they later ventured the removal of hypertrophic tuberculosis of the cecum with the ileocolic glands, leaving huge tuberculous glands extending up along the aorta as high as the diaphragm, their size varying from that of a walnut to that of an egg, with complete and permanent cure of the patient. Shutting off the supply of infection evidently enabled Nature to overcome the poison which had already been absorbed into the glandular system. In several of the specimens the bovine type only of tubercle bacilli were found to be present, thus lending credence to Kocher's theory of milk or butter infection, quoted by Eisendrath above.

Again, as far back as 1904,⁶ in his address on surgery before the Mississippi Valley Medical Association, W. J. Mayo reports having found tuberculous disease of the appendix as a localized process twenty-nine times (with no deaths) in 1,888 operations for appendicitis, or an incidence of 1.53 per cent. of apparently primary tuberculosis of the appendix.

It is, of course, well known that the appendix may be secondarily involved in a tuberculous disease of the adnexa, and Murphy cites four cases out of seven wherein the appendix was adherent to tuberculous adnexa in which the appendix was also tuberculous. He declares the disease to be more common in males, and between the ages of 20 and 40.

The bacilli may reach the appendix in four different ways: by way of the bowel, the peritoneum, the lymphatics or the blood, but the

intestinal route is undoubtedly the most common one.

According to Kelly and Hurdon, and others, tuberculous appendicitis manifests itself in two distinct varieties, the usual ulcerative or caseous variety, and the less common form, which is characterized by a massive connective tissue production, the so-called hyperplastic tuberculosis. To these Murphy would add a third, viz., that form manifesting itself in peritoneal tubercles. Undoubtedly, the majority of cases of this third class are part of a more or less widely disseminated intra-abdominal tuberculosis, although the bacilli may traverse the lymph spaces of the walls of the appendix, from the ulcerated mucosa to the peritoneum, in which case, it seems to the writer, the disease would still be part and parcel of the ulcerative variety. Cornil and Richelot called attention to a third variety wherein a secondary colon-bacillus infection, superimposed on the tubercular infection, results in a suppurative appendicitis, the primary tuberculosis disappearing in the midst of the purulent focus. This is, however, as remarked by Kelly and Hurdon, a mixed or terminal infection and cannot be considered a distinct form of tuberculosis. An instance of such secondary infection engrafted on a case of hyperplastic tuberculosis of the appendix and ileocecal coil, and in which the question of malignancy arose, will be referred to more in detail later.

Caseous or ulcerative tuberculosis of the appendix may often not be recognized by macroscopic examination, the exterior presenting nothing to distinguish the condition from a simple chronic or subacute inflammation. The serosa is usually injected and frequently very light, veil-like adhesions are present. Occasionally, however, white and gray tubercles stud the serosa, coming from bacilli which have traversed the appendiceal walls or spread from the peritoneum of neighboring structures when the organ is involved secondarily. The appendix is usually thicker than normal, though in one of Kelly's cases it was diminished in size, resembling a withered, obliterated organ. A careful examination of the interior, however, shows an injected mucosa with more or less extensive ulcerations of a caseous appearance quite characteristic of tubercular disease, round or oval in shape, or even encircling the lumen of the appendix. On the floor of the ulcer there may be grayish tubercles, but in some cases the entire mucous membrane is caseous. This form of the disease most frequently invades the tip, next the base and least often the middle, thus involving most frequently the points of fecal stasis. It may remain confined within the walls of the appendix for months, or even years, re-

5. *Annals of Surgery*, July, 1909.

6. *Journal A. M. A.*, April 15, 1905.

sembling lupus in its progress, with repair in one zone and destruction in another. It rarely perforates but occasionally forms peri-appendiceal abscesses, which usually open into the bowel. This is probably what occurred in the case mentioned in the early part of this paper. The drainage of the tuberculous debris of the appendix into the cecum is said by Murphy to infect the latter not infrequently. Histologically, in this form, the characteristic tuberculous lesions are found principally confined to the mucosa and submucosa. Invasion by secondary organisms may induce a purulent process or a complete fibrous transformation that will so obscure the tubercular lesions as to render even the microscopic diagnosis extremely difficult.

The hyperplastic form of tuberculosis not uncommonly invades the appendix as a part of a cecal disease, but primary hyperplastic tuberculosis is decidedly rare, and I am able to find the records of but two cases, one, that of Crowder, rather fully described as to its pathology by Kelly and Hurdon, and the other one reported recently⁷ by A. W. Blain of Detroit, the latter unique in that its pathology was manifested chiefly in the subserosa, rather than the submucosa, which is the usual site of greatest tissue change. This variety is productive of great infiltration of the wall and enlargement of the appendix to many times its normal size, the hypertrophy of the walls often being accompanied by a fibro-adipose deposit in the subserous layer. While macroscopically it is often difficult to differentiate the tuberculous mass from a true neoplasm, yet usually it is less sharply outlined than the mass of a malignant growth. Involving as it does the whole circumference of the bowel, this thickening of tuberculosis gradually merges into the normal portion, with the preservation of the normal contour of the intestinal tube. Occasionally cicatricial contractions produce various irregularities in the form of the mass, and narrowing of the lumen or actual stenosis are frequently found, as a result of the gradual encroachment of the hypertrophied walls. The cut surface of the mass presents a fairly uniform, fibrillated structure strikingly like a sarcomatous growth, but with the different layers fairly well defined. Yellowish foci of degeneration are not uncommon. Microscopically the most conspicuous feature is the general fibrous proliferation, most pronounced in the submucosa. With an abundant formation of oval and spindle-shaped connective tissue cells, there is also much fibrillated and homogenous intercellular substance. Hurdon found, in the diffuse infiltration, an excess of small plasma cells, many showing active mitosis, though lym-

phoid cells predominated in the focal tubercles. Microscopic tubercles are usually present, especially in the mucosa and submucosa, but are not numerous, and may have the typical structure, or may consist merely of an aggregation of lymphoid cells or of the latter plus giant cells, epithelioid cells and caseation being entirely absent in such instances. Along with the mucous and submucous layers, the muscular coats are involved, and even the peritoneal covering often shows extensive lesions, the whole picture being one of a chronic, productive inflammation associated with a tubercular process, such tubercular process in this variety being due, it is held, to an attenuated organism rather than a virulent form such as would result in rapid destruction and necrosis of tissue.

As an instance wherein the secondary infection was of such immediate import as to mask for the time the tuberculous nature of the process, as well as an illustration of the occasional difficulty of differentiating tuberculosis of the appendix and cecum from malignancy, I recall a case of Dr. McCaskey's, operated on first by Dr. Porter seven years ago last August for a suppurative appendicitis. The first operation consisted merely of drainage of what seemed to be a peri-appendiceal abscess. A fistula persisting was the occasion for a more radical operation in October, which consisted of resection of a mass containing the cecum, a small portion of the ileum and the structures adjacent thereto—the remains of the appendix, ileocecal glands, etc. This mass Dr. Rhamy thought to be malignant of a mixed type, scirrhous carcinoma with lymphosarcomatous infiltration. The patient succumbed a few weeks later and from the post-mortem specimens Dr. Rhamy reported the presence of tubercle bacilli, but still believed a diagnosis of coexisting carcinoma to be justified.

From these data it may be concluded:

1. That it is often difficult clinically to determine when appendiceal tuberculosis is truly primary, that is, whether it may not have followed a closed pulmonary or other distant lesion, or when combined with an ileocecal tuberculosis, which lesion was the original one.

2. That from statistics at present available, the frequency of what seems clinically to have been primary tuberculosis of the appendix may be estimated at from one-fifth of 1 per cent. to 1.5 per cent., a rather wide range of incidence.

3. That because of the resemblance of certain acute cases to ordinary forms of appendicitis and of the more chronic ones, especially of the hyperplastic type, macroscopically and microscopically, to malignancy, the disease is more commonly encountered than recognized.

7. Journal Michigan State Medical Society, Oct., 1912.

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EDITORIALS

FEE-DIVISION

Medical fee-division has long been the subject of an animated discussion in medical societies and in the medical press. Of late it has been discussed by the laity, and even considered by legislatures, with the result that some states have passed laws making fee-division in any form punishable by cancellation of the license and an added fine for the doctor found guilty.

Fee division has been termed an evil—ethically and morally wrong. It must be wrong in principle as well as in practice, or there would be no rapidly increasing sentiment calling for its abolishment, and no laws would have been passed making it a punishable offense. That it has little or nothing to commend it is evidenced by the fact that it has few, even among those who practice it, who openly defend it. That it is a species of graft has been charged repeatedly and never successfully refuted.

The practice has arisen through two reasons: first and primarily, the surgeon, oftentimes illy equipped by education and experience, who sees in fee-division or commission-giving a means of rapidly acquiring a practice; second, the general physician, usually underpaid at all times and usually not possessing enough moral back bone to insist on and to secure adequate compensation for his services, who sees in the offer of the commission-giving surgeon an opportunity to increase his income with little or no effort.

To offset the argument that every physician should make and collect his own fees, and that the patient is entitled to know what he is paying for, the specious argument is made by the surgeon that he is helping the general physician to receive deserved compensation which otherwise he would not receive; and the general physician argues that he ought to receive a portion of the usually large fee paid the surgeon, inasmuch as

it is the general physician who helps put the surgeon in the position where a large fee can be charged. Sometimes the general physician advances the plea that in receiving a commission from the surgeon he is simply receiving a fee for his services, though he neglects to offer any explanation as to why he does not present his bill direct to the patient. It even has been proved that a few general physicians do not hesitate to collect the fee from both the surgeon and the patient. With it all the argument is advanced that the patient is not wronged, as he pays for the service in bulk and no more than would be paid under any other plan.

Some presume to say that the combined fee covering all services is eminently fair and does no harm to any one and is quite acceptable to the patient. This specious argument does not take into consideration the possibilities of harm arising from the practice which the large majority of general physicians would follow in taking their patients to the surgeon who is most liberal in the division of the combined fee, and it is very evident that the unfit surgeon would be willing to make the most advantageous terms for the general physician. The patient is, therefore, at the mercy of the referring physician, who may select a surgeon of ability and experience independent of any monetary consideration, or who may select the surgeon largely if not wholly because of the remuneration it brings and without honest consideration of ability.

While it is certainly probable that a very large number of referring physicians are entirely above the practice of seeking the highest bidder for surgical work, yet the practice of fee-division, under any guise, is so tinctured with commercialism and so pregnant with possibilities for injustice to all, and more especially to the patient, that it deserves to be stamped out. If there was the slightest reason for its existence, the matter would assume a different aspect, but from the beginning physicians have been trusted as counselors and advisers and have been paid for their services by the patient. There has been no temptation to spoil that confidence and trust by resorting to the commercialized practice of accepting a fee for delivering the patient to some surgeon for attention which the referring physician does not consider himself competent to give.

In common with other prominent medical journals, and in keeping with the decision to discuss

any subject of vital interest to the profession, *THE JOURNAL*, at the request of a prominent Indiana surgeon, opened its columns to the discussion of the fee-division question. The editor of *THE JOURNAL* feels that he would have been recreant to his trust had he done otherwise than condemn fee-division as ethically and morally wrong, and under any circumstances as unworthy of adoption by an honored profession that has for so long held itself aloof from rank commercial practices. A perfect avalanche of correspondence came to *THE JOURNAL* in answer to the invitation for communications on the subject of fee-division, and while at first the letters conveyed a spirit of frankness in discussing the merits of the subject, it was not long before malicious personalities were indulged in by those who undoubtedly favored fee-division, but would not openly defend it. Even members of the laity joined in sending letters for publication in *THE JOURNAL*, and in these letters some ugly charges were preferred against some of our surgeons and general physicians known to indulge in the questionable practice of fee-division. In short, the trend of the discussion got to the point where it was not a frank and logical discussion of the right or wrong of fee-division, but an effort to besmirch the character of numerous more or less prominent physicians. As none of the letters were anonymous communications, it became incumbent on the editor of *THE JOURNAL* to publish all, if any, and in the interest of harmony he exercised his prerogative of barring everything of a distinctively personal nature. This does not indicate that discussion of the subject of fee-division is to be dropped, for we believe that the matter is deserving of serious consideration, and that the honor and good name of the medical profession demands that the pernicious practice of fee-division should be stamped out.

Therefore, it was with feelings of pride and satisfaction that we witnessed the adoption of a resolution by the Indiana State Medical Association at its recent session in which it was decided by a unanimous vote that it is the sense of the Association that fee-division is iniquitous, and those who continue to practice it are deserving of expulsion from the Association. The resolution as passed, which was made an amendment to the By-Laws, is as follows:

"This Association does not countenance or tolerate fee-splitting, division of fees or commission-

paying, directly or indirectly, and any member found guilty shall be expelled from membership."

The members of the House of Delegates who voted on this resolution were evidently conscientiously opposed to fee-division, on the ground that in principle it is wrong, and that its possibilities for harm are too great to warrant any public sanction of the practice. Not a voice was raised in defense of fee-division, and not a single vote against the resolution was recorded. The representative medical men who were thus called on to take a stand seemed to feel that the reputation and honor of the Association was at stake, and they loyally rose to the occasion and voted as their consciences told them they should vote. Our only regret is that the Association did not go a step farther and announce its willingness to have laws passed making fee-division in any form a criminal offense; for Indiana, in company with many other states, will eventually have a law bearing on the subject, and the representative medical societies will appear in a better light if they can show that they have recognized and opposed a practice which legislatures deem sufficiently wrong to justify stopping by law.

But aside from all this the medical profession of Indiana should purge itself of a practice that is demoralizing and has no logical reason for existence. Every right-thinking man should lend his support to a movement which shall place the profession back into the esteem and confidence of the public. One of the complaints made has been that the general physician is too poorly paid, and we admit the contention, but that does not place us in the position of sanctioning questionable practices in order to secure for him that to which he is rightfully entitled. It is our duty to aid in establishing a recognition on the part of the public that general physicians are deserving of more liberal compensation, and especially when assuming the responsibility of deciding on operative treatment. The general physician himself should make some attempt to raise his standard, and he should have the moral stamina to charge and collect from the patient what is his just due and not to ask or expect the surgeon to do it for him. The plea that the surgeon gets the fee, oftentimes all the patient can afford, and that the family physician is left without any compensation for his services in the case, need not be worthy of consideration if the surgeon makes it a point to see that the patient deals as fairly with the general physi-

cian as he does with the surgeon. There is probably not a surgeon in the land who is not willing to so adjust his fees and the manner of payment so that the patient can adequately compensate the family physician for any and all services rendered. In this process of adjustment the capable and conscientious physician gets his just due. It is only the trickster who wants more than his services are worth, and knows that he cannot collect his unearned fee by reason or law, who will object to the plan proposed. He will insist on holding up the surgeon for the fee, and unquestionably sooner or later he will take his patient to the highest bidder, for if his conscience and honesty are so warped that he will take an unearned fee in a manner that will not stand inspection and publicity, then he will go a step farther and sacrifice his patient to the highest bidder, whether that bidder be capable or not. In fact, whatever way we look on the matter, the question of fee-division is very apt to place a premium on trickery and dishonesty, and the very fact that the public is crying aloud for protection shows the deplorable condition of affairs which exists.

We sincerely hope that the profession will readjust itself on this question of fee division, and that an earnest effort will be put forth to secure such consideration for each and every member of the medical profession as shall make it unnecessary to resort to the slightest evidence of questionable dealing in order to secure adequate compensation for one and all. We believe in the ultimate domination of right, and we know that there is not one single physician who practices fee-division but who down in his heart knows that the practice is ethically and morally wrong. Therefore, if the problem that now confronts us is approached in the proper spirit, it will be solved in not only a satisfactory manner, but in a manner that will be in keeping with the high ideals we represent.

HOPE IN THE TREATMENT OF CANCER BY RADIUM

There is probably no field in surgery wherein the profession has met such obstinate resistance and in which progress has been so slow as in the treatment of cancer. Despite the expenditure of millions of dollars and the efforts of some of the hardest-working scientists, we are little farther

along in the solution of the cancer problem than we were a score of years ago. For some time we have been encouraged to believe that in the radioactive treatment of malignant disease there lay some hope of advance in our results. In fact, Abbe, in his recent address before the Seventeenth International Congress of Medicine,¹ went so far as to say that surgery is entering on a new era of hope and attainment in the treatment of malignant disease; that whatever the primary cause of cancer, the practical problem for solution is that of its treatment; and that in view of the temporizing effect only of surgery, we have to look to forces like organic chemistry or biochemistry, or agents like Roentgen rays or radium for the most effectual therapeutic results.

He begins by describing the effect on seeds, of exposure to varying amounts of soft and hard rays, describing first the death-dealing force on the near-by seeds; second, the stimulating effect on seeds a little farther removed; and third, the retarding effect of the hard gamma rays on those seeds placed beyond the distance of stimulation. The range of action of alpha rays is supposedly within a half inch, that of beta rays somewhere about an inch and a half, while the gamma rays are ultra-penetrating. Obviously, in the treatment of cancer, it is the effect of the gamma rays for which we must seek, and it is probable that the partial or total failures of the past may have been largely due to ignorance of the baneful influence of the alpha and beta rays.

Abbe's experience is based on the treatment by radium of more than 750 private cases, including 250 epitheliomas of all parts; 180 carcinomas of the tongue, throat, esophagus, rectum, uterus, breast, etc.; 50 sarcomas of the skin, parotid, bones, etc., besides goiters, tumors of the liver and mediastinum, and a variety of nevi, moles, papillomas, etc. In the light of his present knowledge, Abbe feels that the numerous failures seem due to inadequate amount, or insufficient time of application, or error in using the proper rays.

A simple example of the effect of radium is that on common warts, of which obstinate and unapproachable varieties on every part of the body—tongue, palate, buccal lining, eyelids, soles of the feet, underneath finger nails and elsewhere—have invariably disappeared after one radium application, leaving a normal bed.

1. *The Lancet*, Aug. 23, 1913.

Equally brilliant effects have been noted on laryngeal papillomata, eight of which the author has treated with success, one having existed forty-seven years, during which time it had been extirpated by competent operators not less than twice each year. One radium treatment removed so much of the growth that no operation was needed for three years. A most interesting case of this type was that of a young singer whose growth extended over both vocal cords and who, after thirty minutes' application of 100 milligrams of strongest radium, subsequently enjoyed the full return of her singing voice.

Epithelioma of the skin seems to yield readily to this agent and an illustration is given of a case of primary cancer at the root of the neck, developed to the size of half a hen's egg, which had been grown so tightly to the carotid artery at its origin that its complete dissection was not possible, a flat shell being necessarily left attached to the vessel wall. The immediate postoperative use of strong radium for eight hours has resulted in immunity from disease for four years.

The author unqualifiedly supports the preliminary use of all justifiable surgical means with subsequent radium treatment as the most effectual treatment. As an evidence of the truth of this assertion, it may be cited that the ulcerating forms of cancer are most amenable to radium, hence the necessity of reducing the amount of growth to be penetrated, to the smallest possible volume.

Some types of mammary cancer, close to the skin, can be completely cured by radium alone, but in the worst types of carcinoma of the breast, uterus, tongue, esophagus, stomach and rectum, operative interference should be called into play, if at all possible, to be followed as above indicated by radium application.

In esophageal obstruction by malignant growth, a widening of the channel and temporary relief ensue, but as yet no permanent cures can be claimed.

Obstructive rectal cancer has been distinctly ameliorated and comparative health restored for several years, although as yet no cures have been obtained.

In the field of uterine cancer the author has more hope. At least he feels certain that the immediate effect of extreme radiumization on cancer of the uterine cervix, or in the scar after operation is such as to replace the disease by sound

ecatrix. One case is cited wherein curettage was followed by radium treatment in 1905, the patient remaining in perfect health up to the present time. Similar results have been obtained in a number of cases since that time, the patients up to the present remaining well.

Rather remarkable results have likewise been experienced in the treatment of destructive types of sarcoma by radium, and an example is related of an extensive tumor of the lower eyelid which had resisted Roentgen rays and rapidly disappeared after four hours of radium. This cure has lasted nine years and the cosmetic result is perfect. Another case of extensive giant-cell sarcoma of the jaw, treated in 1904, shows an equally favorably result and a similar control of this type of disease has been experienced by the author in nine cases, only two of which are still under treatment. A most interesting case was that of a gentleman 60 years old with numerous tumors in closely related groups on his bald scalp, varying in size and grouped in chains and uneven purplish hummocks, more than a dozen in all. They resembled sarcoma and were diagnosed as malignant by three other physicians, including Fordyce, who said it was unquestionably of hopeless malignancy, probably sarcoma. His total exposure was seven hours, over six places, and on the twelfth day he returned with a normal scalp, movable and flexible as in health, and nowhere a trace of former disease.

The author concludes this remarkable presentation with the following deductions: 1. An undoubted retrograde degeneration of malignant cells under correct dosage of gamma radiation. 2. Effective use of radium lies in the application of a large enough quantity to avoid the stimulating action of little doses at short range. 3. The utilization of gamma radiation with its deep penetration can be made by the removal of alpha and short beta rays by filtration through lead. 4. Such filtration requires many times as long for a sufficient amount of gamma rays to act, as when other rays are eliminated by what may be called "distance filtration." One and a half inches or four centimeters seems in practice to exclude most of these and gives free and instant play of the entire gamma range without delay of passage through lead. 5. Cross firing of several specimens simultaneously or of one large specimen moved successively to several near-by places is necessary for the best work. 6. Normal tissue

resists many times as large doses of gamma rays as are required to check and dissipate morbid growths, as shown in the larynx.

INFECTION AS A CAUSATIVE FACTOR IN CHRONIC ARTHRITIS

For the past several years the term rheumatism has been recognized to be one of very indefinite significance, and particularly that form which manifests its symptoms in the more chronic type. So that any information tending to clear up both the etiologic factor and the distinct types of such disability, is well worthy of the attention of the profession.

In a paper read before the Section on Surgery at the Minneapolis meeting of the American Medical Association,¹ Billings presented some further data concerning the factor of chronic focal infections as a causative factor in chronic arthritis, that are most interesting and important. His observations have been made on some seventy patients suffering from arthritis deformans, most of whom showed some focal disease located in the head. In the majority of these it was a chronic streptococcus focus of the faucial tonsils, but occasionally there were seen chronic alveolar abscess and chronic streptococcus sinusitis. Strangely enough, in monarticular osteo-arthritis of the hip especially, chronic hypertrophic prostatitis with residual urine, chronic cystitis and infection with the colon bacillus seemed to be a causative factor. Seminal vesicle infection with either the gonococcus or streptococcus may cause systemic infection, and particularly arthritis deformans. It follows, of course, that the septic focus may be found in any circumscribed streptococcus abscess, as a chronic appendicitis, chronic cholecystitis, etc. There were present in his series the three prevailing types of chronic arthritis with deformities, namely, the so-called proliferative or hypertrophic, the degenerative or atrophic and the spondylitis deformans type.

Not only were there found a true arthritis, peri-arthritis and synovitis, but also a selective myositis, involving most often the biceps humeri, the masseters, the erector spinae, the anterior tibial group and the hamstring muscles. This chronic myositis, though not painful, causes such

shortening of the muscular fibers as to prevent full extension of the muscles involved. There is also present evidence of chronic neuritis or perineuritis of single or multiple nerves, and all of these patients suffer from some degree of general debility, anemia of various degrees, loss of weight, lessened strength and endurance, and functional nervous disorders consequent on their long suffering. Though not a primary etiologic factor, faulty metabolism is an important factor both in the progress of the disease and in its treatment. It is probable that the primary causes of the trophic disturbances occurring in the joints is the tissue reaction to the bacterial toxin, specifically exciting a proliferative or degenerative local metabolism with its characteristic morbid anatomy. Davis and Jackson were able to produce non-suppurative, proliferative and degenerative joint lesions in rabbits by experimental inoculation with a strain of streptococcus obtained from arthritis patients.

In this series of cases a most thorough clinical history was obtained from each patient, to be followed by a careful general and special examination, oftentimes with the aid of throat specialists, urologists and other experts. Following the removal of the focal infections, surgically or otherwise, the dominant organisms were isolated, the opsonic and phagocytic indices obtained and repeated after autogenous vaccination at intervals of one week. Rabbits were inoculated with the living bacteria and the results studied on the animal living and dead.

From abscesses and sealed crypts of the faucial tonsil the dominant organisms were found to be *Streptococcus viridans* and *Streptococcus hemolyticus (pyogenes)*. Rosenow found the organisms from acute rheumatism to occupy a position between these two forms of streptococcus, more virulent than the former and less so than the latter. All three types have been isolated from rheumatism and each shows its own peculiar cultural characteristics. Interestingly enough, by varying the condition of growth, they may be changed quite readily one into the other, and indeed the third type particularly appears as a diplococcus in short chains and as single cocci. Furthermore, three of the strains from rheumatism have been converted into typical pneumococci and reverse transmutations can be made from the pneumococcus to the various cultural characteristics of the streptococci named. By

1. Journal of the A. M. A., Sept. 13, 1913.

the cultural modification of these strains, their pathogenic properties may be made selective at will, their affinity for joints, endocardium and pericardium becoming less and the affinity for the muscles, myocardium and kidney much greater. Billings thinks that the strains of the streptococci studied are undoubtedly the same as those described by Poynton and Payne and Beattie as the *Micrococcus rheumaticus*. He feels that the work of Rosenow reconciles the differences in the type of organism isolated from cases of acute rheumatism by various observers in showing the possible transmutation of organisms by variations in cultural methods, the range of transmutation being from a type of streptococcus to the pneumococcus, the pathologic manifestations closely following such transmutation.

The line of treatment carried out has included the removal of all possible sources of focal infection, providing free drainage when necessary, and the improvement of the patient's immunity to the infectious organisms by absolute rest for an indefinite period, improvement of the general and individual hygiene and autogenous vaccinations with the strain of streptococci isolated in each patient.

Many of the patients investigated had been ill for months or years, had received vaccinations of commercial vaccines, single and mixed, and during the past year several had received repeated injections of Rheumo-Phylacogen. As far as could be learned, such treatments were instituted without any investigation of the patient's condition or a diagnosis of the infectious organism, and naturally not one had received benefit from vaccines of any kind, many having been made apparently worse.

When justified by the improvement of the joints and general condition of the patient, the contracted muscles were stretched under anesthesia, and, when necessary, casts applied to the lower extremities, to be followed at the proper time by calisthenics, graduated walking and tonic hot-cold spray baths. The author considers hospital treatment absolutely necessary for proper régime.

From the clinical and bacteriological studies and their experiments, the author feels that we can now recognize arthritis deformans as a distinct clinical type manifesting itself in various degrees of severity. Recovery in the early stages, and a spontaneous checking of the serious morbid

structural changes in the latter stages may be brought about through the development of a process of local immunity.

Naturally, a careful differential diagnosis must be made from other chronic arthritic infections, such as gonorrheal and tuberculous arthritis, neuropathic joints, chronic podagra and senile arthritis with deformities.

The author's results have shown that in those cases wherein no marked destruction of tissues has occurred, recovery has taken place many times and other patients are convalescent, while patients with cartilaginous and bone disease have vastly improved and the progress of the disease has been apparently checked.

The results of this work of Billings and his coworkers should prove to be a boon to the thousands of sufferers from chronic and deforming joint lesions who have otherwise beaten about from pillar to post, from doctor to osteopath, from mud baths to Christian Science. It would seem to be only another instance of the possibility of careful, well-regulated clinical and experimental investigation, coupled with an ability for perfecting its therapeutic application.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better *Journal* for you.

THE hookworm exhibit at West Baden proved a very attractive and interesting feature which aroused the interest and enthusiasm of nearly all those in attendance. The exhibit was brought to West Baden by Dr. Lillian H. South and Dr. Arthur T. McCormick, of Bowling Green, Ky. An interesting feature of the exhibit was the proof offered that hookworm exists in Indiana.

THE selection of Lafayette as the place for the next annual session of the Association meets with very general approval. Now that the Association pays its own expenses there is no reason why the Association should not go where it chooses, if the place selected affords ample accommodations. It is time to get away from the idea that the Association must have an invitation from and be lavishly entertained by the local profession of the places selected for sessions.

It is unfortunate that some of those who promised papers for the West Baden session failed to put in an appearance, and it was also unfortunate that others withdrew from the program when it was too late to fill their places. We believe that the Association should adopt a rule similar to that prevailing among most of the sections of the A. M. A. to the effect that any member who fails to live up to his obligations when he accepts a place on the program shall be barred from presenting any papers before the Association for a period of three years.

THE combined stereopticon and opaque projector used at the West Baden session was an unusually fine instrument and made the lantern demonstrations particularly valuable and instructive as a part of the scientific program. In fact, it was clearly demonstrated that the programs for our annual session will prove far more instructive if lantern demonstrations are added. The Association is indebted to the well-known firm of Eli Lilly & Co., of Indianapolis, for the loan of the instrument and skilled men to operate it.

DR. WILLIAM H. WISHARD of Indianapolis, who is eleven months older than the state of Indiana, has the distinction of having had an acquaintance with each of the twenty-seven governors of this state. He met the present governor recently when Governor Ralston called at his home and spent more than an hour chatting with him. Dr. Wishard, though in his ninety-eighth year, still retains his faculties in a remarkable degree, and he entered into a long discussion with the governor about the early days of Indiana. Dr. Wishard has been prominent in the State Medical Association for many years.

GOVERNOR RALSTON vetoed the "Roller Towel Bill," which was prepared and passed by both houses of the legislature as a measure intended to prevent the dissemination of disease, and especially diseases that cause destruction of the eyesight. So far as we are able to learn, the Governor has given no logical reason for his attitude, and we are therefore constrained to believe that he was influenced by the rankest kind of politics. When it comes down to a consideration of what is really best for the people of Indiana, or what is in the interest of political advancement, irrespective of the welfare of the people, the Governor seems to take his stand with the latter.

KENTUCKY ought to be proud of her State Board of Health, and especially proud of Dr. J. N. McCormack and his corps of able assistants, who, by their energetic and painstaking methods, are doing much to educate the public concerning the value of preventive measures to preserve health. The hookworm exhibit sent to the last session of the Indiana State Medical Association shows how the practical application of knowledge possessed by our health boards can be put to use in educating the public, and in this number of THE JOURNAL we reproduce at some length the report from Kentucky as to how the work is carried on. The activity and enterprise of the Kentucky board is commended to other states.

OUR sentimental Governor and the State Board of Pardons are doing a good job in emptying our reformatories and prisons, but they are also turning loose a lot of criminals who are repeating crimes which accounted for their confinement in our penal institutions, and for which they should serve full sentences. Within the past few years several pardoned convicts have failed to show that they were deserving of their liberty, and it would seem that some effort should be made to protect the public from the work of our pardoning boards.

As one of several instances of the menace to the public which these pardoned convicts are, we refer to the case of a rapist who within one week following his recent liberation from prison on a pardon was caught in an attempt to rape a young girl, and it was said that it was the second offense of the kind within a week. With the after-effects of such misguided leniency, it would seem that more caution would be observed in turning loose criminals who have not served their full sentences.

THE Association is to be commended for its action on the fee-division proposition, for the resolution adopted at West Baden indicates that the representative men of the profession are in favor of stamping out the pernicious practice of fee division in any form. However, the Indiana profession could not afford to do otherwise than place itself on record as opposed to fee division, and it would have been nothing short of a disgrace to ignore the question in the face of the wave of disapproval which is going over the country and has recently become emphasized by the laity in laws making the practice a penal offense. A great deal of praise is due the members of the House of Delegates who voted on this subject at West Baden, for the situation was one requiring decisive action at a time when opinions differed as to the propriety of placing the Association on

record. The discussion and the subsequent action of the delegates showed very plainly that there was an honest effort to settle the question in a manner which would leave no room for doubt as to the honor of the profession of Indiana.

IN the matter of responsibility for dues collected by county medical society secretaries and intended to be turned over to the State Association, we believe that the county secretary is acting as the agent of the county medical society, and not as agent of the State Association. If the Association must stand the loss when collected dues are confiscated by the county secretary, then the Association should have a voice in the selection of the secretary and should demand that the secretary furnish some bond for the faithful performance of duty. However, it is our firm belief that inasmuch as the county medical society selects its secretary from among its own members and to perform regular duties as prescribed by the county medical society, the collection and remitting of dues to the State Association form one of the duties imposed by the county medical society, and if there is any dereliction of duty the punishment should come from the county medical society and not from the State Association. At all events, the question should be definitely settled by the House of Delegates, inasmuch as we have two or three instances in which dues have been collected by county medical society secretaries and not turned over to the Association, and with our present medical defense features as one of the advantages of membership the question of prompt payment of dues to the Association becomes a matter of legal importance.

DESPITE the war that has been waged by the A. M. A. on the advertising quacks going under the name of *The United Specialists*, *United Doctors*, *Associated Doctors*, etc., these impostors are continuing their nefarious work, and are found advertising in the daily papers of many of the prominent cities of Indiana. They are aided and encouraged in their fraudulent work by the daily newspapers who profit through the advertising income. A trick now employed to encourage patronage as well as support is to advertise that a large private hospital to meet the demands of the rapidly increasing business will be built, with the attending benefit to the city or town where the quacks are operating. Advertisements of that nature have been appearing in the newspapers of several of the towns of Indiana.

Concerted effort on the part of the medical profession would drive these quacks out of the state, and we know of no better way to accomplish the purpose than to procure the pamphlets on "Quacks, Itinerant and Otherwise," and "The United Doctors," published by the American Medical Association, and distribute the same to the public in every locality where the United Doctors or others of their stripe are located. Furthermore, medical men under the official action of their respective societies could publish a statement in the daily papers, quoting the information contained in the pamphlets issued by the American Medical Association, and in this way the public would be warned concerning the fake specialists who prey on and defraud the sick.

BY the authority of the International Physicians Esperanto Association, the American members are organizing a branch association under the name of *The Usona Esperantista Kurocista Asocio*. The International Esperanto Physicians Association is the only international association of physicians whose members are totally unhampered with regard to free intercommunication. Thanks to Esperanto, we have before us an unlimited field of investigation and an opportunity to obtain first hand acquaintance with medical affairs in every corner of the world.

Kurocisto, the official organ, appears monthly, and is absolutely unique among medical publications. Every number is full of interesting material, and no progressive doctor should be without it.

Plans are now under way for the first convention to be held in connection with the congress of The Esperanto Association of North America in Chicago in 1914. In order that all members may have an equal voice, the complete organization will be deferred until the Chicago meeting, at which time will occur the election of officers and provision for the constitution and by-laws. Any physician is eligible to membership on payment of \$1.05 to the treasurer of the American Association, and will be enrolled also as a member of the International Association and will receive a free subscription to the *Kurocisto*. Applications for membership may be sent to the Provisional Treasurer, Dr. C. H. Fessenden, Newton Center, Mass., or to the Indiana delegate of the Universal Esperanto Association, Dr. Lydia Allen DeVilbiss, Ft. Wayne, Ind.

EVERY surgeon of ability and experience aspires to membership in the American College of Sur-

geons, an institution that has been organized with the specific purpose of placing a stamp of approval on every physician who is qualified by education, training and ethical conduct to be proclaimed a specialist worthy of the confidence and the patronage of the public. Every applicant for election as a fellow of the American College of Surgeons must present detailed and comprehensive credentials, and, last but not least, is required to sign a declaration concerning his attitude on the subject of fee division. It may be of interest to our readers, many of whom are interested in the fee-division proposition, to know how specific the declaration of the American College of Surgeons is on this subject of the division of fees, and accordingly we publish the declaration, which is as follows:

"I hereby promise on my honor as a gentleman that I will not, so long as I am a fellow of the American College of Surgeons, practice division of fees in any form; neither will I collect fees for others referring patients to me; nor will I permit them to collect my fees for me; nor will I make joint fees with physicians or surgeons referring patients to me for operation or consultation; neither will I in any way, directly or indirectly, compensate any one referring patients to me; nor will I utilize any man as an assistant as a subterfuge for this purpose."

Some of our fee-splitting surgeons and specialists will find this a bitter pill to swallow, but it will have to be approved if recognition by the American College of Surgeons is desired.

THE National League for Medical Freedom, an organization having its origin and support among quack doctors and manufacturers of fraudulent patent medicines, is attempting to influence the people of Indiana through the publication of paid articles which are appearing in many of the newspapers throughout the state. A two-column article which has recently come to our attention contains some of the most glaring falsehoods and inconsistent arguments that could possibly be put forth in opposition to the medical profession. It should be evident to the casual reader that there is a motive back of such vituperative abuse, and we believe that it is the duty of the medical profession to resort to publicity in laying before the people true knowledge as to what constitutes the National League for Medical Freedom, and for what purpose it was organized. When the public realizes that the sole and only purpose for the existence of this so-called league is to perpetuate

the deception and fraud common to the promotion and sale of patent medicines and the practice of quackery, it ought to be an easy matter to offset the influence which many misguided people may give to a propaganda that is not thoroughly understood and which receives no opposition from us. One of the reasons why the medical profession has had so much difficulty in bringing about needed reforms and in fighting the enemies of medical progress is that too little attention has been paid to the question of educating the public, and there has been too much of a tendency to ignore the pernicious attacks made on the medical profession by just such organizations as the League for Medical Freedom. If the medical profession will have a few paid articles in the daily newspapers, and organizations like the League for Medical Freedom are handled as they ought to be handled, the public will have a far different idea of the work that the medical profession is attempting and the motive which prompts opposition.

AN astounding number of so-called doctors are practicing medicine in Indiana within the full meaning of the law without the formality of being licensed by the State Board of Medical Registration and Examination. Among these are the chiropractics, mechanotherapists, magnetic healers, osteopaths, vitopaths and numerous other fakers who are preying on the sick and suffering. They use the term doctor, advertise in the papers to treat and cure any and all kinds of diseases, and many of them prescribe medicine and even perform minor surgical operations. So far as we know, but little has been done to bring these law-breakers to the bar of justice, and we often wonder why we so complacently continue to give our support to medical laws and medical examination boards that do nothing more than harass if not really prevent from engaging in medical practice those who are ten times more qualified to treat the sick and suffering than some of those who are permitted to do so without let or hindrance. At every examination by the State Board of Medical Registration and Examination a certain number of fairly well educated men who have taken a four years' medical course and possess a medical diploma fail to pass the examination, which usually is not of a practical nature and at best never satisfactorily indicates the qualifications of those who take it. These men who fail to pass the examination are refused license, and if perchance they take it on themselves to begin the practice of medicine without a permit, the

Board of Medical Registration and Examination swoops down on them with legal prosecution and a judgment is secured which makes further practice impossible. But all this time medical fakers of every description, either with or without license, have no difficulty in practicing medicine within the boundaries of Indiana, and whether or not an effort to disturb them is made by the Board of Medical Registration and Examination, *they continue to practice*. Of course, little could be expected from a board appointed without due regard to fitness for the position, and for whom the position offers no further obligation than profiting by it politically or otherwise. Surely it is about time that we do away with this farce.

DEATHS

JOHN D. ARMFELD, M.D., of Elwood, Ind., died September 10, aged 74 years.

ALBERT STAUDACHER, M.D., died at Terre Haute, September 16; aged 79 years.

MRS. LUCINDA SHAW, widow of DR. SHAW of Anderson, died September 25; aged 84 years.

LaBELLE HUNT KEYES, wife of DR. OTTO M. KEYES of Dana, Ind., died at her home Aug. 26, 1913.

JOSEPH F. BLOUNT, M.D., died at his home in Evansville, Ind., August 16, from senile debility; aged 86 years.

R. M. VANCLEAVE, M.D., of Muncie was found dead in bed at a hotel in Terre Haute September 7. He was 35 years of age.

ERASTUS M. DROLLINGER, M.D., aged 60, a pioneer physician, died October 2 at his home in South Bend. Dr. Drollinger had practiced medicine in the county for thirty-five years.

AUGUSTUS TIBBETTS, 82 years old, a retired minister and physician, died at his home in Wabash, October 2, after having lived for many years in a dwelling equipped with double doors and windows to keep the fresh air from entering his rooms.

CHARLES L. LEONARD, M.D., of Philadelphia, prominent because of his experiments and practice with x-rays, died of x-ray poisoning at his summer home at Atlantic City September 30.

R. FRENCH STONE, M.D., of Indianapolis, was found dead in his office October 4 from asphyxiation. Dr. Stone was 69 years of age, and was a member of the Pension Examining Board in that city.

OLIVE NELSON, M.D., of Huntington, died at her home September 23 of heart trouble. Dr. Nelson graduated from the Hahnemann School of Medicine in Chicago in 1900, and has practiced medicine in Huntington since that time. She was a member of the National Institute of Homoeopathy and served as national vice-president of the Woman's Auxiliary for several years.

DR. J. B. GARBER of Dunkirk, aged 57 years, died October 3, at the Hartford Hotel, Hartford City, where he was taken immediately following an accident on September 30, when he was fatally crushed under his automobile, which turned over into a ditch.

Dr. Garber was born in Guernsey County, Ohio, in 1856, and received his early education in the district schools and in the Dennison University of Grandville, following which he taught for thirteen years, being one of the instructors in the Ohio Normal School. In 1886 he began the study of medicine and graduated from the Jefferson Medical College, Philadelphia, in 1891, beginning the practice of medicine in Mainville, Ohio, later taking special work in New Orleans, and then locating in Dunkirk, where he practiced until death.

He was prominent in the medical profession, being a member of the Jay County Medical Society, the Indiana State Medical Association and the American Medical Association. He was at one time vice-president of the Indiana State Medical Association, and for several years president of the Eighth District Medical Society; also served as coroner of Jay County for many years. Dr. Garber was known in the American Medical Association as an advocate of the idea of the use of no alcohol in the practice of medicine, and read a paper on this subject a few years ago before that association which was widely discussed.

NEWS NOTES AND PERSONALS**INDIANAPOLIS**

DR. O. N. TORIAN and family have been spending their vacation in the mountains of Tennessee.

DR. H. E. GABE has been on a month's vacation trip south, spending most of his time at Asheville, N. C.

DR. J. W. RICKETTS was recently called to the bedside of his mother, at Kane, Pa., who is seriously ill with acute appendicitis.

DR. JAMES B. BOBBITT has been appointed assistant surgeon in the Medical Reserve Corps of the United States Navy.

DR. H. O. PANTZER attended the meeting of the American Association of Obstetricians and Gynecologists at Providence, R. I., the week of September 15.

DR. A. G. POHLMAN of the faculty of the Indiana University Medical Department has been elected head of the department of anatomy in the St. Louis University.

THE Robert W. Long Hospital will be open for patients the latter part of November, if present plans are carried out. This will add greatly to the teaching opportunities of the University.

PROFESSOR LINDLEY of Bloomington will give a course of twenty-two lectures in practical psychology to the senior medical students of the University. This course is designed to be an introduction to the course given later in the year in mental diseases.

MISS ALICE FITZGERALD will be superintendent of nurses at the Robert W. Long Hospital. Miss Fitzgerald received her training at Baltimore, Md., and has occupied the position of supervisor of nurses at Johns Hopkins Hospital. It is the intention to make the nurses' training school a department of the University.

DR. R. S. RISSLER, who has been in the government employ in Manila for more than four years, has returned to this country on leave of absence and will take a special course in sanitation at Harvard Medical School and in Vienna, before returning to his post of duty.

THE Indianapolis medical profession is well represented in the race for mayor of the city, two of the four candidates being physicians: Dr. W. N. Johnson the candidate on the Progressive ticket, and Dr. C. S. Woods on the Independent Non-Partisan ticket. Both men are making a strenuous campaign for election.

THE Methodist Episcopal Hospital, on account of the enormous demands for rooms, has decided to build a new wing and also a nurses' home that will accommodate 100 nurses, and also provide additional facilities for labor work. At a recent meeting of the board of trustees, Hon. Charles W. Fairbanks was elected as chairman, and teams were organized to raise \$250,000 in a ten-day campaign.

THE Indianapolis Medical Society was fairly well represented at the recent state meeting at West Baden, although it was noticeable that the majority of the members attending were men who were engaged in some one of the specialties. It would seem that the meeting ought to be sufficiently attractive to induce a larger representation among men doing general practice. If the program were arranged with a view to being particularly beneficial to this class of practitioners, a strenuous effort should be made to get out a fuller attendance on the part of the men doing general practice.

THE building of the medical department of the University has been thoroughly renovated. All the walls and woodwork have been given a coat of much-needed paint. This has added immensely to the appearance of the clinical and lecture rooms. Amphitheater No. 2 has been greatly improved, from the standpoint of ventilation and light, by a large window placed in the rear wall. Steps have been put in leading from the amphitheater down to the lecture platform, obviating the necessity of climbing over a high rail. Three new rooms have been installed on the second floor for the social service department.

THE Social Service Department of the Indiana University was opened Sept. 20, 1911. It belongs to the Department of Economics and Social Science of Indiana University, but its daily work is with the School of Medicine in Indianapolis. It is housed with that and the City Dispensary.

It began on a very small scale, but its growth has been marvelous, and to-day, besides the director, two general workers, a general visitor (who is a registered nurse), two clerical assist-

ants, a fellow in social science (who does research work only), and a junior medical student (who gives twelve hours a week to the visiting of patients), they have the services of a large number of medical students who assist in looking after the patients.

The Department has four objects: the care and cure of patients referred to it by the physicians in the Dispensary and School of Medicine; the education of medical and sociological students in medical sociology; the enlistment of the public for preventive work for public health; the gathering of information concerning the origin and results of disease and poverty.

The Department holds no funds for relief, but depends on local organizations, churches, societies and individuals for the care of those patients for whom money must be spent.

Between Sept. 20, 1911, and Oct. 1, 1913, 928 patients, local and state, were referred to the Department; 848 are still under its care or observation.

GENERAL

THE Gary Medical Society will entertain the Tenth District Medical Society in November.

THE wife of Dr. Lorin W. Smith of Wabash, who has been critically ill, is convalescent.

A MOVEMENT is on foot for the establishment of a new hospital at Monticello, White County, Indiana.

DR. H. B. HAYWARD has recently moved from Hammond to Valparaiso, where he will take up special work.

DR. J. P. FEAGLER of South Bend has recently returned from fifteen weeks of study in the medical centers of Europe.

TRUSTEES of the Reed Memorial Hospital, Richmond, have voted to install a new chemical laboratory at the hospital.

DR. G. W. H. KEMPER of Muncie attended the fiftieth anniversary of the battle of Chickamauga at Chattanooga in September.

DR. J. D. BANES of Delphi has sold his practice to Dr. Smith and will move to Cashmere, Wash., where he will open an office.

DR. C. E. BARNETT of Ft. Wayne, who has been spending several months in Europe visiting hospitals and clinics, has returned.

DR. AUGUST KNOEFEL has moved from Linton, Ind., to Terre Haute, where his duties as chief surgeon for the Vandalia Coal Co. call him.

DRS. W. A. PRICE and M. D. Price of Nappanee won out in the suit brought by Dorothy Linn for damages for alleged malpractice.

DR. J. M. IRVING, formerly house surgeon in the Union Hospital at Chicago, has opened offices at Linton, Ind., and will there practice his chosen profession.

THE Gibson County Society for the Study and Prevention of Tuberculosis has built a model tuberculosis-prevention sleeping-house in the court-house yard at Princeton.

DR. C. C. RAYL of Monroe, Ind., will sail for Europe the latter part of October for a year's work, chiefly in surgery. Mrs. Rayl will accompany Dr. Rayl on his trip abroad.

DR. WILL W. HOLMES, formerly of Indianapolis, has located in Room No. 10 in the Masonic Temple, Logansport, Ind., where he will engage in the general practice of medicine.

DRS. JOHN W. COOK of Pendleton, Thomas M. Jones and Daniel S. Quickel of Anderson have been appointed to succeed Drs. Perse, Edwins and Keller on the Madison County Pension Board.

DR. J. S. DUKATE of Alford, Ind., celebrated his ninetieth birthday anniversary September 22. Dr. Dukate is the oldest practicing physician in the state, having practiced for sixty-five years.

DR. F. C. EBERHARD announces that he has located in 305-6 Physicians' Defense Building, Ft. Wayne, Ind., and that he will limit his practice to surgery, diseases of women and rectal diseases.

THE business men of Portland have received sufficient funds to erect a tuberculosis cottage on the Jay County Fairgrounds. This cottage will eventually be moved into the city and placed in charge of a trained nurse.

THE tuberculosis clinic of the Indianapolis city dispensary held a picnic at Military Park, September 26. At this meeting a movement was started to raise money to establish a tuberculosis colony near the city hospital.

THE building committee of the Methodist Hospital, Indianapolis, on Saturday, September 27, awarded a contract for the new pavillion, which will cost approximately \$50,000. This will increase the capacity of the hospital to 285 beds.

THE Woodlawn Hospital at Rochester, Ind., under the supervision of Dr. W. S. Shafer and superintendancy of Mrs. Alberta King, has made rapid progress in the past few years and has reached a high plane of efficiency and usefulness in that county.

DR. THOS. J. BEASLEY, formerly medical director of the Rockwood Tuberculosis Sanitarium, announces that he has opened an office at 427 Newton Claypool Building, Indianapolis, and will continue to specialize in diagnosis and treatment of tuberculosis.

AT the Indiana State Fair this year an emergency hospital was conducted under the supervision of Dr. W. H. Fortner. In connection with the hospital was a tuberculosis exhibit, with charts showing the prevalence of that disease in Indiana during the last five years, the victims numbering over twenty-one thousand.

THE newspapers are exploiting a new cure for cancer called mesothorium. It is said that it will be a substitute for and is far cheaper than radium. It is a radioactive substance obtained from the waste products of some of the rare minerals. It is said that wonderful results have been secured in Berlin in the treatment of cancer.

MEMBERS of a Harvard medical expedition to South America have returned home, bringing twenty-one cases of malignant disease germs for study and experiment. The specimens include bubonic plague germs; uta, a strange enemy to health, similar to leprosy; pellagra germs; oroya fever germs, and other strangers to the North.

AN inspection of the public schools of Bartholomew County was made by Dr. James A. Nydegger of the School Department of the United States Public Health Service. Dr. Nydegger inspected every school in the county, examining the eyes, throat and teeth of every pupil. The inspection disclosed sixteen cases of trachoma in the county.

BECAUSE of alleged prejudice against him in Marion County, Dr. Wm. R. Craig, with Alonzo Ragsdale, charged with the murder of Dr. Helen Knabe in October, 1911, asked for and was granted change of venue, and the case will be tried in Shelby County. The change, of course, will necessitate further preparation for the trial and will add new delay.

THE annual meeting of the American Mine Safety Association was held at Pittsburgh, September 22, 23 and 24. The following officers were elected for the ensuing year: President, J. W. Reese, Gillespie, Ill.; first vice-president, Dr. A. F. Knoefel, Terre Haute, Ind.; second vice-president, Joseph Fletcher, Frontenac, Kan.; third vice-president, Pearson Wells, Ironwood, Mich.

DR. G. W. H. KEMPER has a few copies of his Medical History of Indiana yet on hand, and in order to dispose of these and place them in the hands of physicians and libraries has reduced the price from \$2.50 to one-half that amount. Until the supply is exhausted, on receipt of \$1.25, sent to Dr. Kemper at Muncie, he will promptly remit the book. This will be the only and final opportunity to secure this valuable history, as no new edition will be printed. In order to secure a copy it should be ordered at once.

THE new five-story, fireproof addition to the St. Joseph Hospital, Fort Wayne, Ind., was opened to the public on October 8. This institution is one of the most modern and up-to-date of its kind in the state, being finished in an absolutely sanitary manner throughout, the walls being of tile and the floors of mosaic. The hospital contains two major and one minor operating rooms, which are finished in white glazed tile, both the walls and ceiling, and are equipped with the improved Frink hospital and operating room lights and reflectors, which make the operating-rooms nearly as light as in daylight. The kitchen, meat-room and sterilizing rooms are also finished similar to the operating-rooms.

This hospital is the only one that has installed one of the new Audressen-Singrum refrigerating machines, which cools the ice-box and drinking-water, doing away with the dangers and care of the old type of ammonia or carbon dioxid machines. The elevators in the building are the Otis self-operating type, with electricity as motive power, which does away with an attendant to care for and operate same.

SINCE August 1 the following articles have been accepted for inclusion with New and Non-official Remedies:

Abbott Alkaloidal Co.:

Acne Bacterin, Polyvalent.
Coli Bacterin, Polyvalent.
Friedlander Bacterin, Polyvalent.
Gonococcus Bacterin, Polyvalent.
Pneumo-Bacterin, Polyvalent.
Staphylo-Bacterin, Polyvalent.
Staphylo-Albus Bacterin, Polyvalent.
Staphylo-Aureus Bacterin, Polyvalent.
Staphylo-Bacterin (Human) Albus, Aureus and Citreus.
Strepto-Bacterin (Human).
Slee's Antistreptococcus Serum.
Slee's Antimeningitis Serum.
Slee's Normal Serum.
Typho Bacterin, Polyvalent.
Typhoid Prophylactic.

Comar & Co.

Electr.—Hg.

Cutter Laboratories.

Acne Vaccine.
Coli Vaccine.
Pneumococcus Vaccine.
Pyocyanus Vaccine.
Staphylococcic Vaccine.
Streptococcic Vaccine.
Typhoid Vaccine.
Typhoid Prophylactic Suspension.

Farbwerke-Hoechst Co.

Melubrin.
Ninhydrin.
Placentapeptone.

Herman Barker:

Barker's Gluten Food A.
Barker's Gluten Food B.
Barker's Gluten Food C.

Lederle Laboratories.

Antigonococcus Serum, 10 c.c. syringe.
Antimeningococcus Serum, 15 c.c. cylinder.
Antistreptococcus Serum, 10 c.c. syringe.
Antistreptococcus Serum, 50 c.c. cylinder.
Antipneumococcus Serum, 10 c.c. syringe.
Antipneumococcus Serum, 50 c.c. cylinder.
Normal Horse-Serum, 10 c.c. syringe.
Normal Horse-Serum, 100 c.c. vial.

Rabies Vaccine.

Scarlet Fever Treatment.
Scarlet Fever Prophylactic.

Merck & Co.:

Copper Citrate.

National Vaccine and Antitoxin Institute.

Antityphoid Vaccine (Immunizing).

Sophian-Hall-Alexander Laboratories.

Whooping-Cough Vaccine.

Having announced that the advertising claims now made by the Sophian-Hall-Alexander Laboratories will be adhered to by E. R. Squibb & Sons, the Council voted that the acceptance of the products described in *The Journal of the American Medical Association*, April 5, 1913, p. 1074; April 19, 1913, p. 1227 and Sept. 6, 1913, p. 771 be allowed to stand.

THE Fourth Clinical Congress of Surgeons of North America will be held in Chicago, Nov. 10-15, 1913. As its name indicates, the Clinical Congress has for its object the emphasizing of clinical demonstrations for the benefit of its members rather than following the conventional method of inviting its members to read and discuss papers. This plan restricts its sessions to larger cities where abundance of clinical material is always available and where there are competent clinical teachers fitted to make demonstrations and willing to open their clinics to members of the congress.

Every clinician of ability and reputation in Chicago will be ready to do his share in entertaining the hundreds of guests who are expected to attend, and every branch of surgery will be represented in the program: gynecology, obstetrics, genito-urinary surgery, orthopedics, surgery of the eye, ear, nose and mouth. One will find enough actual surgical work in any one of the specialties to keep him busy each day of the session. In addition to clinics in operative surgery, a large number of special demonstrations in radiology, experimental surgery, surgical pathology, etc., will be provided.

The Committee on Hospitals announces that more than 2,000 members may be accommodated at all times in the larger amphitheaters, and in addition there are numerous clinics where small groups of from ten to forty may be accommodated. Attendance on the special demonstrations will be limited to small groups, for which special tickets will be distributed at headquarters.

The Committee on Arrangements has provided headquarters at two separate hotels; general headquarters at the Hotel LaSalle, and Division of Surgical Specialties (eye, ear, nose, throat and mouth), at Hotel Sherman, three blocks from Hotel LaSalle.

During the afternoon of each day of the session there will be bulletined at headquarters a complete, accurate program of clinics and demonstrations to be given on the succeeding day. These bulletins will be displayed on large boards in the ball-room in the Hotel LaSalle, and in the Louis XVI room of the Hotel Sherman. Printed pro-

grams will be issued daily announcing all clinics, demonstrations, evening sessions, business meetings, etc. Complete program for Monday will be posted Saturday afternoon.

Any physician or surgeon in North America in good standing may become a member of the Clinical Congress by registering at any annual meeting and paying registration fee of \$5.00. Automatically, subscribers to *Surgery, Gynecology and Obstetrics*, the official organ of the Congress, are members of the Congress and will receive invitations without request. Other members of the profession who desire to attend will receive formal invitations on request to the general secretary.

A registration fee of \$5.00 is required of each surgeon on registration, at which time a membership card will be issued. Unlike conditions prevailing in most medical societies, where annual dues are paid by each member whether he attends annual sessions or not, payment of a registration fee is required of a member of the Congress only when he attends an annual session. This fee provides funds to meet the expense of annual meetings in order that no financial burden may be imposed on physicians in the city entertaining the Congress. Payment of the fee is therefore expected from all who register.

Each surgeon who desires to attend clinics and evening sessions must register at headquarters and secure a membership card, as admission to all clinics and evening sessions will be strictly limited to members on presentation of such cards.

There will be eight evening sessions at which scientific papers will be read and discussed by distinguished American and European surgeons, five devoted to general surgery: Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, and three to the specialties: Tuesday, Wednesday and Friday.

Thursday evening will be devoted to the discussion of the cancer problem. The session will be held in Orchestra Hall, and prominent laymen and surgeons representing various organizations will discuss in brief addresses this problem, especially as it relates to education of the public in regard to importance of early recognition of cancer and importance of treating the disease in its early stages.

The section of the Congress which includes surgery of the eye, ear, nose, throat and oral cavity offers a series of operative clinics. The committee, of which Dr. Casey A. Wood is chairman, are making a special effort to overcome the drawbacks which usually prevent all but a limited number from viewing the details of the majority

of operations done on the eye and neighboring organs, and they propose to adopt such devices as will give the largest possible number of visiting surgeons the best possible view of the operative field. Admission to these clinics will be by ticket only.

Special rates have been granted for this session of the Congress over the New York Central Lines, the Pennsylvania Lines and Grand Trunk Railway, the Chicago and Eastern Illinois, the Santa Fe and the Chicago, Milwaukee and St. Paul railways.

CORRESPONDENCE

THE LONDON HOSPITAL

LONDON, ENG., Sept. 20, 1913.

To the Editor:—For the genito-urinary surgeon and gynecologist visiting the London clinics, probably the best three hospitals to visit, all things considered, are London, St. Peter and Charing Cross. The magnitude of London Hospital alone would give him ample clinical material did he not care for a change of pasture.

The London Hospital occupies a space in the business section of the city, surrounded by ten squares. During the last year there have been over 237,000 in- and out-patients cared for there. This requires a large training school (over seven hundred nurses) besides the subsidiary help. The hospital plant is practically self-sustaining, so far as the manufacture of its own drugs, surgical dressings, surgical, medical and electrical appliances, etc., goes.

In going through the wards one sees some conveniences that would bear imitation; for instance, each bed has large roller caster wheels that enables the patient to be transferred to an inner court open-air sun porch, which is adjacent to each ward, to which all patients, physically able, are taken each morning and afternoon for a fresh airing and sunshining. Each bed has an individual locker and eating tray attachment and the patient is enabled to manipulate them without rising from his bed. Each bed is curtained off, similar to the state-room beds on shipboard, so the patient can isolate himself or be isolated whenever necessity demands, thus doing away with the cumbersome and insanitary screens. The food is sent from the mammoth kitchen in sealed containers for each ward, and of course is fresh, hot and uncontaminated. They serve some kind of food or tea over here about every fifteen minutes (?), so the patients are served regularly six times a day with some variety of food.

The visit to the x-ray-rooms show them doing a vast amount of work there, using almost entirely large English-made tubes with heavy current and quick (instantaneous) exposure. The Finsen ray for lupus is being used on a large scale, and many patients are lying exposed to the ray for practically the whole day. The success of this treatment, after a daily exposure for twelve to eighteen months, according to comparative photographs, is marvelous.

Some of the new things in the operating-room are: Filtered and tempered air circulation; moveable observation amphitheater; a dark room for x-ray observation, patterned after Wertime's idea, whereby pushing an electrical button automatically causes iron shutters to entirely exclude the light from all the windows. A good point in the sterilization of dressings, etc., is that they are put into the sterilizer (a mammoth affair) in one room, called the "dirty" room, and when needed after sterilization are taken out of the other end of the sterilizer into a clean or asepticized room. Each operating suite of rooms is independent of others, so far as every equipment is concerned, and when you consider that there are seven suites of operating-rooms, all in one row, operating full blast every day, it makes the impression of "doing things" to the visiting surgeon.

The writer was mostly interested in the work of Mr. Kidd, the genito-urinary surgeon, who has had the good fortune to succeed Mr. Harry Fenwick, who has retired. He is a masterly operator and has the courage and good sense to use our American technic whenever indicated, and has the honesty to admit that it is American.

CHARLES E. BARNETT.

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

West Baden Session, September, 1913

The House of Delegates was called to order at 8:30 p. m., September 24, by President Kimberlin. Roll call showed a quorum present and the first order of business was the reports of the officers and committees.

Dr. H. C. Sharp made some additional announcements on behalf of the Committee on Arrangements.

The report of the Secretary was received and accepted after a discussion concerning the advisability of the Association taking the position that a member was not in good standing until his state dues were received by the state Secretary. A motion prevailed to have the chair appoint a committee to report with recommendations on Friday morning. The chair appointed Drs. W. R. Davidson, Evansville; Chas. H. Good, Huntington, and C. N. Combs, Terre Haute.

The Treasurer's report was received and a motion carried to have the same submitted to an auditing committee appointed by the President.

The report of the Committee on Scientific Work was accepted as printed in the September number of THE JOURNAL.

The report of the Committee on the Conservation of Vision was received and accepted as printed in the September number of THE JOURNAL, as was the following supplementary report authorizing the expenditure of \$121.31 as itemized in the report:

The chairman of your Committee on the Conservation of Vision reports that he has expended for postage the sum of \$3.41.

For the propagation of this work he has ordered a series of illustrative lantern slides from the Committee on Prevention of Blindness of the New York Association for the Blind, the cost of which is \$17.90, as per the bill accompanying this report. The purchase of the slides is recommended.

Publicity in the newspapers is desirable. We can have the service of the American Press Association. I submit its estimate of cost. One hundred dollars per year judiciously expended will bring good results, judging from the experiences of states like Ohio.

The report of the Committee on Medical Defense was accepted as printed. Since the balance in the hands of the committee now exceeds the bond required, on a motion, duly carried, the amount of the bond was changed from \$3,000 to \$6,000, which is the maximum amount of money that can be in the custody of the committee. A motion prevailed allowing the treasurer of the Defense Committee to use his best judgment in depositing any part of the fund at his disposal on interest. The following amendment was offered for Chapter XI, Section 6 of the By-Laws, adding thereto:

The financial report of the Committee on Medical Defense shall be submitted to and approved by an auditing committee appointed by the President of this Association.

The reports of the Committees on Medical Education, State Medicine, Tuberculosis, Medical Research and Post-Graduate Work, Inebriety, Prevention of Venereal Diseases, Public Policy and Legislation, Pathology, Compulsory Ventilation, Credentials and Necrology, were received and accepted as printed in THE JOURNAL.

Adjourned.

CHAS. N. COMBS, Secretary.

A called meeting of the House of Delegates was held Thursday, September 25, at 5 p. m., with Dr. A. C. Kimberlin presiding. Roll call showed a quorum present. Dr. A. T. McCormack, secretary of the Kentucky State Medical Association, was a visitor. The purpose of the meeting was to further discuss a paragraph in the report of the Committee on Public Policy and Legislation. Dr. Theo. F. Potter, Indianapolis, submitted the following resolutions, which were adopted May 6, 1913, by the Indianapolis Medical Society:

WHEREAS, It being a matter of common belief among members of the Indianapolis Medical Society that there are those of our membership who have participated in the questionable procedures of fee-splitting and such allied practices; and

WHEREAS, It being also a matter of general belief among our membership that the complete abolition of such alluded to practices, wherever occurring in our state, will undeniably inure to the benefit, not only of the members of the medical profession, but to the entire citizenship of the state; therefore be it

Resolved, That it is the sense of the Indianapolis Medical Society that each member thereof do his obvious duty fully, to the end that criticism may not obtain properly, relative to the business transactions of a professional character of any member thereof; be it further

Resolved, That the delegates from our society to the next (and succeeding) sessions of the Indiana State Medical Association take the initiative if possible in securing action by the House of Delegates antagonistic to the questionable procedure of fee-splitting and such allied practices; be it also

Resolved, That the Secretary of our Society is hereby directed to memorialize the State Medical Association's officers at once, expressing to said Association the belief and desire, on our part, that it may formulate and promulgate a suitable and just plan for properly dealing with fee-splitting and such allied practices. The same were received and placed on record.

Dr. H. H. Martin, LaPorte, offered the following as an amendment of the By-Laws:

WHEREAS, The division of fees, paying of commissions, or any other form of remuneration for referring patients, as the paying of a fee for assistance, openly or secretly, is unprofessional, reprehensible and opposed to public policy; therefore, be it

Resolved, That any doctor guilty of such practice shall be refused membership in the Indiana State Medical Association, and any member found guilty of such practice shall be expelled from the Association provided that he be given opportunity of a trial as prescribed by the By-Laws and Constitution in relation to conduct of members.

The motion prevailed to amend this by striking out the word: "openly." The President announced that this amendment would receive final consideration at the Friday morning meeting of the House, but that the same could be changed and still adopted, providing that the intent and purpose of the amendment be not compromised.

The following communication from the committee appointed by the Medical Section was received, approved and placed on file:

Pursuant to a resolution of the Medical Section, the committee appointed by the chairman offers the recommendation that the Legislative Committee of the Indiana State Medical Association be instructed to prepare, for presentation at the next general assembly, a bill authorizing an appropriation for and the erection of a state psychopathic hospital, to be located in the city of Indianapolis, preferably affiliated with the Indiana University School of Medicine.

Adjourned. CHAS. N. COMBS, Secretary.

The House of Delegates convened at 8:30 a. m. Friday, September 26, with President Kimberlin in the chair. Roll call showed sixty-five delegates present and voting. First order of business was election of officers, which resulted in the election of the following officers to serve for the fiscal year, 1914: President, James P. Salb, Jasper; First Vice-President, C. E. Stone, Shoals; Second Vice-President, P. H. Linthicum, Evansville; Third Vice-President, Chas. L. Botkin, Farmland; Secretary, Chas. N. Combs, Terre Haute (reelected); Treasurer, David W. Stevenson, Richmond (reelected). Delegates to the American Medical Association for the ensuing two years: J. Rilus Eastman, Indianapolis; Edwin Walker, Evansville; Alternates, T. F. Spink, Washington; Geo. R. Osborn, LaPorte.

Dr. A. C. Kimberlin, Indianapolis, was elected to succeed himself for the ensuing three years as a member of the Medical Defense Committee.

On invitation by Dr. W. R. Moffitt, who presented letters from the mayor and President Stone of Purdue University, Lafayette was selected for the place of meeting for the next annual session. Date decided on was Sept. 24 and 25, 1914.

The amendments concerning the Medical Defense by-laws were adopted as read at the previous meeting.

Dr. G. W. H. Kemper, Muncie, presented to the Association an alphabetical index of the members who had made contributions to the scientific sessions of the Association from its inception to 1906. A motion prevailed tendering Dr. Kemper the thanks of the Association for this contribution to the history of the Association, which would not be available were it not for Dr. Kemper's labor of love. Dr. Kemper replied acknowledging the kindly spirit with which this was received, and mentioned a topical index of subjects which he had prepared, covering the same period. A motion was made and carried providing for the publication of both the list and topical index in THE JOURNAL at the expense of the Association, and further providing for a number of reprints which will be bound and sold to members at cost, the money reverting to the Association.

A discussion followed concerning the amendment on fee-splitting, and the amendment, as unanimously adopted, was worded as follows:

This Association does not countenance or tolerate fee-splitting, division of fees, or commission paying, directly or indirectly, and any member found guilty shall be expelled from membership.

Dr. Davidson made the following report of the committee appointed at the previous meeting, which was accepted:

A line should be inserted in the duplicate receipt given the member stating that the County Secretary is not acting as agent of the State Association.

A line should be inserted in heavy-faced type stating that the member is not regarded as in good standing or as a member of the State Association until his dues have been received by the State Secretary and his card of membership issued.

Dr. Davidson then introduced the following amendment as a substitute for Section 1, Chapter 1 of the By-Laws:

On receipt of the proper fee and the duplicate receipt of the County Secretary, the State Secretary shall issue a card of membership to a physician so applying, which shall constitute membership in good standing from date of issuance.

On account of some conflict in the Constitution and By-Laws, and for the reason that several amendments have been made since the last printing, a committee was appointed to codify the By-Laws and the Secretary was ordered to have a new printing, adding to it a list of the membership and sending a copy to each member. The chair appointed on this committee Drs. W. R. Davidson, chairman; A. E. Bulson, Jr., and Chas. N. Combs.

Adjourned. CHAS. N. COMBS, Secretary.

THE COUNCIL

A meeting of the Council of the Indiana State Medical Association was held at West Baden, Friday, September 26, at 11 a. m. Present, Drs. Wishard, Kemper, Williams, Eckhart, Davidson, Osborn, Heitger, Jones, Stevenson, Kimberlin, Salb, Combs and Stemm. Minutes of the midwinter meeting were read and ap-

proved. The councilors' bills were presented and ordered to be sent to the auditing committee in the regular routine. The report of the Treasurer, Dr. Stevenson, was audited by Drs. Kemper, Williams and Osborn, who examined the bank book, canceled checks and receipted bills and found same to be correct.

The Secretary spoke of a confusion that exists concerning the incurring of expenses for the annual session, and a motion was made to the effect that since the Association is paying its own expenses the local chairman of the Committee on Arrangements shall not be allowed to incur bills that are to be paid by the Association unless an estimate first be approved by the Secretary. This motion was carried.

The next order of business was the election of chairman for the ensuing year. Dr. W. N. Wishard, having announced one year ago that he would ask to be relieved of the duties of chairmanship at the next election, after having been chairman of the Council since its formation, declined to be renominated and the name of Dr. W. R. Davidson was proposed by Dr. Stemm. Vote being taken, Dr. Davidson was unanimously elected to be the chairman of the Council for the ensuing year. Council then adjourned to meet in a short time at Indianapolis for a special session to consider the report of the committee appointed to revise the Constitution and By-Laws.

Adjourned.

C. N. COMBS, Secretary.

The following is the registration at the West Baden session. The total is 312, of which 184 registered in the Medical Section, 88 in the Surgical Section, and 40 in the Eye, Ear and Throat Section:

H. W. Alburger, Indianapolis.
W. E. Amy, Corydon.
Chas. Arburn, Wadesville.
L. W. Armstrong, Danville.
S. I. Arthur, Patoka.
H. M. Arthur, Hazelton.
R. E. Baker, Orleans.
J. R. Ball, Lebanon.
P. J. Barcus, Crawfordsville.
H. L. Bass, Fort Branch.
J. N. Baughman, Evansville.
J. W. Baxter, New Albany.
C. G. Beall, Ft. Wayne.
H. A. Beck, Lebanon.
R. C. Beeler, Indianapolis.
W. J. Bethell, Winslow.
C. R. Bird, Greensburg.
J. E. Bird, New Albany.
C. S. Black, Warren.
J. H. Black, Lebanon.
A. A. Bond, Westfield.
M. A. Booi, Terre Haute.
H. W. Bopp, Palmyra.
Bo. Bowell, Laporte.
E. Bowers, Vincennes.
I. E. Bowman, Odon.
C. L. Boyd, Paoli.
C. E. Boyd, West Baden.
A. W. Brayton, Indianapolis.
I. D. Brose, Evansville.
C. S. Bryan, Vincennes.
A. E. Bulson, Jr., Fort Wayne.
A. E. Burkhardt, Tipton.
Severance Burrage, Indianapolis.
F. P. Busse, Madison.
V. V. Cameron, Marion.
C. C. Campbell, Walton.
J. W. Carmack, Indianapolis.
S. L. Carson, Vincennes.
Amos Carter, Plainfield.
I. M. Casebeer, Newport.
R. S. Chappell, Indianapolis.
F. Charlton, Indianapolis.
P. E. Clark, Clarksburg.
S. A. Clark, South Bend.
E. D. Clark, Indianapolis.
L. C. Cline, Indianapolis.
A. M. Cole, Indianapolis.
G. G. Colglazier, Leipsic.
C. N. Combs, Terre Haute.
L. H. Conley, Gas City.
Edgar Cox, Kokomo.
F. W. Cregor, Indianapolis.
G. V. Cring, Portland.
L. G. Croner, Union City.
J. E. Cullipher, New Maysville.
F. S. Cuthbert, Kingman.
G. R. Daniels, Marion.
S. C. Darroch, Cayuga.
W. R. Davidson, Evansville.
E. J. Davis, Mooreland.
J. Demotte, Odon.
F. A. Dennis, Crawfordsville.
G. E. Denny, Madison.
F. C. Denny, Madison.

J. R. Dillinger, Frenel Lick.
J. M. Dinnen, Ft. Wayne.
W. T. S. Dodds, Indianapolis.
Claude Doffens, Oolitic.
C. W. Dowden, West Baden.
Moris Drake, Shelbyville.
J. B. Dunean, Bedford.
E. P. Easley, New Albany.
T. B. Eastman, Indianapolis.
G. G. Eckhart, Marion.
R. H. Egbert, Martinsville.
W. S. Ehrich, Evansville.
C. H. Emery, Bedford.
H. K. Engleman, Georgetown.
L. A. Enslinger, Indianapolis.
Bernhard Erdman, Indianapolis.
W. A. Fankboner, Marion.
J. H. Fargher, Laporte.
E. A. Flaughner, Cayuga.
J. H. Ford, Indianapolis.
V. A. Funk, Vincennes.
W. D. Gateh, Indianapolis.
G. L. Gibbons, Mitchell.
W. H. Gilbert, Evansville.
C. E. Gillespie, Seymour.
F. R. Gobbel, English.
D. S. Goble, Evansville.
A. B. Graham, Indianapolis.
P. T. Grant, Marengo.
O. F. Gray, Spencer.
W. S. Grayston, Huntingdon.
J. D. Green, Manilla.
W. O. Gross, Ft. Wayne.
W. L. Grossman, North Vernon.
A. E. Guedel, Indianapolis.
M. D. Gwin, Rensselaer.
Murray Hadley, Indianapolis.
H. G. Hamer, Indianapolis.
G. B. Hammond, English.
F. E. Hammond, French Lick.
M. Hassenmiller, West Baden.
S. J. Hatfield, Indianapolis.
A. M. Hayden, Evansville.
F. C. Heath, Indianapolis.
J. D. Heitger, Bedford.
H. W. Held, Vincennes.
Carl Henning, Hanover.
Alfred Henry, Indianapolis.
K. W. Hidy, Indianapolis.
L. B. Hill, Seymour.
H. B. Hill, Logansport.
W. A. Hollis, Hartford City.
T. C. Hood, Indianapolis.
H. M. Hosmer, Gary.
J. W. House, Indianapolis.
W. F. Howat, Hammond.
W. F. Hughes, Indianapolis.
J. R. Hume, Milroy.
J. N. Hurty, Indianapolis.
O. D. Hutto, Kokomo.
G. L. Ireland, Winslow.
Seth Irwin, Summitville.
A. Jeffers, Birdseye.
J. J. Johnson, Milltown.
L. B. Johnson, Ireland.
W. A. Johnson, Perrysville.
D. E. Johnston, Moores Hill.
S. A. Johnston, Indianapolis.
J. G. Jones, Vincennes.
G. H. Kamman, Seymour.
J. E. Keeling, Waldron.
G. F. Keiper, Lafayette.
J. C. Kelly, Mitchell.
L. H. Kelly, Hammond.
U. G. Kelso, Dubois.
G. W. H. Kemper, Muncie.
Bernays Kennedy, Indianapolis.
T. C. Kennedy, Indianapolis.
W. E. Kessinger, Bicknell.
J. M. Ketcham, Indianapolis.
A. C. Kimberlin, Indianapolis.
J. E. King, Richmond.
J. M. King, Greencastle.
E. E. Kirk, Spiceland.
J. C. Kirkpatrick, Roll.
A. B. Knapp, Vincennes.
H. C. Knapp, Huntingburg.
E. S. Knox, Indianapolis.
N. A. Kremer, Madison.
S. C. Lang, Rockport.
W. T. Lawson, Danville.
D. W. Layman, Indianapolis.
W. J. Leach, New Albany.
E. J. Libbert, Aurora.
S. L. Lingle, Paoli.
P. H. Linthicum, Evansville.
E. E. Long, Shoals.
F. A. Loop, Lafayette.
H. R. Luckey, Seymour.
C. D. Luckett, English.
F. G. Lukemeyer, Huntingburg.
L. C. Lukemeyer, Huntingburg.
R. O. McAlexander, Indianapolis.
James McCall, Terre Haute.
G. W. McCaskey, Fort Wayne.
C. H. McCaskey, Indianapolis.
D. V. McClary, Dale.
H. D. McCormick, Vincennes.
P. E. McCown, Indianapolis.
G. T. MacCoy, Columbus.
A. J. McDonald, Bedford.
J. T. McFarlin, Williams.
S. L. McKinney, Huntingburg.
W. O. McKittrick, Plainville.
E. J. McOscar, Ft. Wayne.
O. W. McQuown, Marion.
J. B. Maple, Shelburn.

SECOND DISTRICT

The Second District Medical Association held a very profitable meeting at Washington on Thursday, September 4. President C. H. Yenne welcomed the visitors and urged in his talk that some steps be taken by the profession looking to the training of a class of nurses who would be able to serve persons of limited means who are unable to pay the customary fees.

Dr. T. A. Hays, Burns City, read an interesting paper on "Hydrogogue Cathartics—Some Special Uses," relating his experience in headache, unconsciousness and convulsions. The paper was thoroughly discussed.

Dr. V. A. Funk, Vincennes, discussed "Cysts of the Omentum," reporting a case and presenting a specimen.

Dr. J. E. P. Holland, Bloomington, handled exhaustively the subject of "Eye Strain, Its Cause and Cure."

Adjournment was then taken for luncheon. Over the coffee a number of physicians made brief talks under the leadership of Dr. B. D. Myers, Bloomington.

The business session followed, officers being elected as follows: President, Dr. J. B. Young, Worthington; vice-president, Dr. A. L. Custer, Linton; secretary-treasurer, Dr. Roy Cook, Bloomfield, all of Greene County, where the next meeting will be held.

Dr. August Knoefel, Linton, presented his resignation as councilor, as he is leaving the district. The resignation was accepted and Dr. J. G. Jones, Vincennes, elected to fill out the unexpired term.

On motion, a committee consisting of Drs. J. E. P. Holland, Chas. S. Bryan and Wm. Cravens was appointed to report at the next meeting such changes in the constitution and by-laws as were needed.

Dr. Jas. A. Maple, Shelburn, read a very impressive paper on "Medical Citizenship," and the secretary was instructed to send a copy to the state medical JOURNAL with a request for its publication.

Dr. Chas. S. Bryan, Vincennes, handled the subject of "Postpartum Hemorrhage" in a thorough manner, and Dr. E. E. Long, Shoals, read an interesting paper on "Some Considerations of Tuberculosis."

About forty-five physicians were in attendance.

Adjourned.

T. F. SPINK, Secretary.

FORT WAYNE MEDICAL SOCIETY

Fort Wayne Medical Society met in regular session in the Assembly Room with seventeen members present. Meeting called to order by president. Minutes of preceding meeting read and approved.

Clinical cases. Dr. B. Van Sweringen reported an obstetric case; third child; normal position; forceps to assist. Tenth day after patient was sitting up she developed pain in leg. Patient ran usual course of phlebitis. Baby nursed during illness. Child developed diarrhea; curds in stools which lasted about forty-eight hours; subsided; child quite sick; some abdominal distention. Urinalysis showed blood and albumin. Next day bled from several mucous membranes and passed pure blood from bladder. Treatment: 20 c.c. of pure blood was obtained from an attending nurse and given hypodermically. Next day 20 c.c. of serum from the same blood was given; twelve hours later 20 c.c. more. Baby improving. At end of twelve hours, fourth injection of 20 c.c. of serum was given. Child recovered completely. Had some urticaria from serum.

- J. I. Maris, Waymansville.
S. C. Markley, Richmond.
A. L. Marshall, Indianapolis.
G. D. Marshall, Kokomo.
H. H. Martin, Laporte.
P. F. Martin, Indianapolis.
R. D. Mason, Oakland City.
N. Matlock, Medora.
A. May, Crothersville.
Vance May, Washington.
N. L. Medcalf, Lamar.
O. O. Melton, Hammond.
F. F. Mendenhall, Elwood.
J. E. Metcalf, Gary.
D. T. Miller, Terre Haute.
E. D. Millis, Plainville.
H. L. Miller, West Baden.
R. S. Mitchell, Washington.
C. M. Mix, Muncie.
W. R. Moffitt, West Lafayette.
E. E. Morgan, Ft. Wayne.
F. B. Morgan, Huntington.
G. B. Morris, Petroleum.
J. L. Morris, Princeton.
W. A. Mowry, French Lick.
R. T. Neffner, Weisburg.
O. C. Neier, Indianapolis.
C. F. Neu, Indianapolis.
T. R. Newcomb, Indianapolis.
O. B. Norman, Bedford.
T. W. Oberlin, Hammond.
G. R. Osborn, Laporte.
J. V. Overman, Indianapolis.
E. E. Padgett, Indianapolis.
H. C. Parker, Indianapolis.
C. B. Paynter, Campbellsburg.
C. F. Pectol, Spencer.
D. C. Peyton, Jeffersonville.
O. G. Pfaff, Indianapolis.
Allen Pierson, Spencer.
Garrett Pigman, Liberty.
G. W. Pirtle, Carlisle.
M. F. Porter, Ft. Wayne.
B. S. Potter, Julietta.
Theo. Potter, Indianapolis.
U. G. Poland, Muncie.
J. L. Preston, Cloverdale.
C. E. Rardin, Bedford.
A. L. Ratcliff, Kingman.
M. Ravdin, Evansville.
H. G. Read, Tipton.
E. Van Reed, Lafayette.
J. K. Ritter, Seymour.
J. B. Ritter, Orleans.
H. C. Robinson, Martinsville.
David Ross, Indianapolis.
L. F. Ross, Richmond.
C. L. Rowland, West Point.
E. R. Royer, N. Salem.
C. P. Runyan, Elwood.
J. P. Salb, Jasper.
L. A. Salb, Jasper.
I. M. Sanders, Greensburg.
O. T. Seamahorn, Pittsboro.
Walker Schell, Terre Haute.
L. F. Schmauss, Alexandria.
P. H. Schoen, New Albany.
A. E. Schweitzer, Indianapolis.
E. M. Shanklin, Hammond.
H. C. Sharp, West Baden.
W. N. Sharp, Indianapolis.
W. S. Sherwood, Mitchell.
Will Shimer, Indianapolis.
H. W. Shirley, Shoals.
J. N. Sloan, Spencer.
W. W. Sloan, French Lick.
J. W. Sluss, Indianapolis.
D. Smith, Lebanon.
W. H. Smith, Oakland City.
T. F. Spink, Washington.
G. W. Spohn, Elkhart.
W. H. Stemm, N. Vernon.
A. E. Sterne, Indianapolis.
J. O. Stillson, Indianapolis.
C. E. Stone, Shoals.
E. T. Stout, Upland.
J. W. Strange, Loogootee.
C. C. Stroup, Bloomington.
E. A. Sturm, Jasper.
Chas. Sudranski, Greencastle.
H. H. Sutton, Aurora.
E. M. Sweet, Martinsville.
S. F. Teaford, Paoli.
F. W. Terflinger, Logansport.
E. D. Thixtun, Terre Haute.
W. E. Thomas, Clarksburg.
H. H. Thompson, Noblesville.
J. M. Thurston, Richmond.
H. S. Thurston, Indianapolis.
W. S. Tomlin, Indianapolis.
C. H. Tomlinson, Cicero.
I. N. Trent, Muncie.
F. F. Treon, Aurora.
J. C. Trueblood, Loogootee.
F. A. Tucker, Noblesville.
O. A. Turner, Madison.
B. Van Sweringen, Fort Wayne.
G. W. Varner, Evansville.
E. J. Ver Wayne, Evansville.
E. De Wolfe Wales, Indianapolis.
Edwin Walker, Evansville.
J. P. Ward, Vevay.
H. E. Washburn, Clinton.
J. C. Webster, Lafayette.
S. W. Weir, Cates.
H. G. Weiss, Rockport.
O. F. Wellenreiter, Gessic.
W. H. Williams, Lebanon.
W. N. Wishard, Indianapolis.
L. L. Whitesides, Franklin.
S. A. Whitsitt, Kent.
F. E. Wolfe, Corydon.
E. U. Wood, Columbus.
A. L. Woods, Poseyville.
Perry Woolery, Heltonville.
Homer Woolery, Bloomington.
J. A. Work, Jr., Elkhart.
F. B. Wynn, Indianapolis.
M. G. Yocum, Mentone.
S. J. Young, Indianapolis.

DISCUSSION

Dr. Dancer: I had one case of hemorrhagic disease of the new-born occurring eighteen hours post delivery. We gave it the same treatment; patient died. The older the child with this condition the better the chances of recovery.

Dr. Weaver: This case was out of the ordinary. Had a temperature of 106 at time of first injection. No one can tell the exact pathology of this condition. We can withdraw blood and inject right away.

The paper of the evening was on "Hypothyroidism," by Dr. H. A. Ray.

DISCUSSION

Dr. Rawles: Has had several cases of hypothyroidism in pregnancy which were greatly benefited by the administration of thyroid extract. Reported a case history of a pernicious nausea and vomiting of pregnancy which was cured by thyroid extract.

Dr. B. Van Sweringen: I had one experience with hypothyroidism. Patient, female, aged 55. The picture in this case was one of interstitial nephritis, at least it seemed so to me. In addition to the usual skin symptoms there was a condition of mental hebetude and muscular weakness; producing a stiffness of jaws and interfering with mastication. Some paresthesia of lower extremities. Swollen condition of face. Woman afterward died, postoperative, of gall-stones. This type of case gives more trouble than the kind reported by Dr. Ray.

Dr. Dancer: Older people are more likely to be troubled with hypothyroidism than younger ones. The extreme sensitiveness to cold is an important point in the diagnosis.

Dr. Weaver: Must not confound this disease with some types of Basedow with lack of secretion, or with an increase in secreting power in one part of the gland and the absence of the secreting power in another.

Dr. Morgan read a paper on "Mucous Colitis."

DISCUSSION

Dr. Underwood: I remember a case of four years' duration without much improvement. Intestinal stasis in this case was caused by adhesive bands. Cook says that he never saw a case of mucous colitis without such a lesion being present. He does not believe that appendicitis is an etiological factor in colitis. I recently had a case of convulsions in a child with mucous colitis. Membrane expelled showing large bacillus which Dr. Rhamy was unable to classify. Some good results reported from the implantation of the Bulgarian lactic acid bacilli.

Dr. Johnston: I have at the present time a case of tuberculosis of the bowel; tubercle in feces. He has been treated with tuberculin; colon and rectum have ulcerations and he expels much mucus. Is relieved by injection of iodoform and olive oil; swabbing the parts thoroughly.

Dr. B. Van Sweringen: I saw two women in Dr. John G. Clark's clinic who had most of their colon removed. There was ptosis of the colon in both cases. Relief followed operation. Many of the symptoms in this class of cases are of toxic origin due to intestinal stasis. Lane says that the constipation is due to the kinks in the intestine.

Dr. Dancer: One of the things which should be eliminated in mucous colitis is the ameba. It has been demonstrated at the Mayo Clinic that it is not necessary to go South to become infected.

Dr. Weaver: I think the most important thing is the neurotic element in the etiology of this disease.

The most recent thing in the treatment (non-surgical) is the method of Goldthwait, the orthopedic treatment of these cases.

Clock's work with the lactic acid bacillus is worthy of further investigation. We made examinations of the culture of lactic acid bacilli gotten out by Mulford & Co. They were immobile, so also was the culture of the Abbott tablet of lactic acid bacilli. The tablet gotten out by the Hynson-Wescott Co. of Baltimore showed motile bacilli. The result seems to be due to the virulence of the culture used.

Dr. Underwood: I have frequently given an enema composed of solution of the lactic acid bacilli.

Dr. Edlavitch: Emetine hydrochlorid is a specific for amebic dysentery.

Dr. William McBride was received into the society by transfer. The application of Dr. Edw. Moser was read and referred to the board of censors.

Bills of Auger Flower Store, \$2, and Fort Wayne Sentinel, \$1.75, allowed. The resignation of Dr. Geo. J. Studer was presented. Motion carried that it be accepted.

Communication of Secretary Gott of the State Board of Medical Registration and Examination relative to method made necessary by the lack of funds of the state board to prosecute members practicing without a license, was read, and the suggestion that the county societies procure the evidence, noted.

Adjourned.

G. VAN SWERINGEN, Secretary.

MEETING OF SEPTEMBER 9

Society met at Lutheran Hospital. Called to order by president, with twenty-seven members present. Minutes of preceding meeting dispensed with.

Meeting in charge of Drs. W. O. Gross, E. E. Morgan and H. A. Duemling.

Clinical cases. Dr. Gross: Patient, Mrs. M., married; no children; age 34. Saw first on June 11, 4 a. m. Suffering from urinary incontinence and in great pain and distress. Refrigerent diuretics controlled hyperacidity of urine and relieved pain. After twenty-four hours vomited incessantly and had bloody stools. Had intense headache and much pain through abdomen. Was removed to hospital and placed in bed under opiates. On following day made vaginal and rectal examinations without being able to discover anything abnormal. Patient had an attack of bleeding piles some years ago. Had had no children or miscarriages. Pains were eased by hypodermic; vomiting controlled by chipped ice; and bleeding by use of stypticin. After a week's rest in bed symptoms abated, took some nourishment; slept part of the time and suffered less pain. At the end of a week she voluntarily left the hospital and again proceeded to do her household duties. Two days afterward was again called to her home and found her on the floor suffering intense pain, this time located in the back below the kidney. Vomiting again made its appearance, this time streaked with blood, and a further hemorrhage from the bowels added to her distress and misery. She was unable to retain either a single dose of medicine or a teaspoonful of nourishment for several days; almost everything came up exactly as swallowed. Refused to enter hospital; consultation, or any measures for her relief; could not speak above a whisper, probably from much

retching and vomiting; became despondent; threatened self-destruction, and finally did commit suicide by taking carbolic acid. Autopsy not secured. Cause of death probably gastric cancer.

Case 2. Male patient, machinist. While at work in stooping position was forcibly pushed forward. Unable to arise and walk without great pain. His medical attendant pronounced it a case of lumbago. After several months' treatment at the hands of different physicians he tried osteopathic manipulations with no relief from his pain in back and head. About six months ago called at my office and submitted to physical examination which was negative excepting an apparent depression of two lumbar vertebrae. A Roentgen-ray photograph showed no abnormality either of spine or spinous processes. All manner of treatment given him failed to relieve. The patient then visited Dr. Reese, he of bone-setter fame. Being anxious to hear something of the methods adopted by this man of notoriety, the patient related the maneuvers of the treatment to which he was submitted. His back is now entirely cured, but he still suffers intense pain in back of head about occiput, probably due to some mechanical interference with the insertion of the muscles at this point. I report this case because of the interest attached to the relief obtained by bone-setter Reese's methods.

Dr. E. E. Morgan: Case 1.—Baby 5 years old; ill two days; sore throat, pain on swallowing. Saw the case late; culture proved diphtheria. Three thousand units of antitoxin injected; within eight hours 3,000 units more; apparent recovery. Ten days later developed paralysis of the palate; albuminuria. Paralysis steadily progressive; pulse, 120; temperature normal; paralysis of the ascending type; patient died at the end of four days.

Case 2.—Boy sent in from country, following three weeks' illness; pulse, 92; respiration, 24; temperature, 102 1/5. One brother has suffered from poliomyelitis. Patient has been unconscious for some days. On Saturday lumbar puncture was made and pus and the diplococcus intracellularis were secured from the fluid. Second tapping was followed by the Flexner antimeningitis serum. The case will continue to be treated by the Flexner serum.

Dr. Duemling: Case 1.—Mr. E. M., 71 years of age, old soldier, had typhoid and measles in the Army; farmer by occupation; never been ill. Dates his first symptom the last of November when he was suddenly taken sick in the night with a severe bellyache. Had not been constipated before. Two enemata relieved him at that time. In February, last, he was again taken suddenly with a severe pain in the abdomen. Since that time he has not recovered as after first attack. Enemata and opiates with increasing frequency were necessary to control pain. He was unable to work and was referred for surgical treatment by Dr. Schuman about four weeks ago. Physical examination shows a well-preserved man. He has lost some in weight and appeared somewhat drowsy. Palpation reveals a sausage-shaped tumor in the left iliac fossa. Rectal palpation with one hand over pubis reveals the presence of a tumor but no obstruction in the rectum is found. No blood in stools; no discharge of pus nor history of intestinal hemorrhage could be obtained. He

has periodic attacks of pain; temperature, 98 3/5; pulse, 84. A radiograph of the intestines after an injection of bismuth seems to indicate a stricture high up in the sigmoid flexure. Diagnosis: carcinoma of the sigmoid. Operation revealed annular carcinoma of the small intestine about 6 inches from the ileocecal valve and adherent to bladder.

Case 2.—Female. Had two tumors in abdomen, one of stony hardness and one a soft cystic tumor. A diagnosis of fibroid of the uterus and cyst of the ovary was made. On opening the belly found the fibroid all right, but the cyst was the uterus which was soft and somewhat enlarged. Was afraid that it was pregnant. Patient had a history of normal menstruation, and there was no suspicion of pregnancy at time of examination. On opening uterus, which was removed by supravaginal amputation, found a hydatid mole. Balance of uterus was then completely removed.

Dr. Carey presented a case of epithelioma of the face in an elderly lady. Tumor of enormous size springing from forehead above right orbit.

DISCUSSION

Dr. Edlavitch said that keratosis senilis not infrequently becomes malignant and grows rapidly.

Dr. Johnston, Kendallville: Patient, William B., aged 42, American; German descent, single; farmer. Mother died at 71 of heart disease; father died at 68, a suicide; five sisters living in good health; two brothers living in good health. One uncle died of cancer of stomach. One year ago had pneumonia; supposedly a good recovery. Thirty years ago palm of right hand suppurated following a bruise. Eighteen years ago had an attack of what was called malaria fever, lasting about two months. Three years ago had blood-poisoning in right arm, lasting two months; since then has never felt exactly well. In July, 1912, had an attack of fever and chills, and sweats lasting four weeks, with pain and distress in region of gall-bladder. Got better and returned to work. In October, 1912, the symptoms returned and he was confined to bed for two weeks, then gradually became some better and was up and around. On March 2, 1913, examination of patient showed a large mass occupying region of liver, extending four and one-half fingers' breadth below costal margin, and from right side to axillary line across median line to about the left nipple line. Dulness throughout right thorax, front and back, and absence of breath sounds over this area. Blood examination negative. Roentgen ray showed a large mass in right thorax, extending down into abdomen. Mass was tender on palpation over region of gall-bladder; had a smooth surface. Wassermann reaction positive. Three punctures into mass between the ribs, in front, on the side and back showed nothing except some bloody serum and blood. Temperature, 101.5; pulse, 120; respiration, 40. Patient's weight gone down from 185 to 136 pounds. Pupils react to light and accommodation. Patellar reflexes O. K. No Romberg. Since March, 1913, patient has been on KI 180 grains daily, with marked improvement and a gain of 6 pounds in weight; disappearance of fever; return of appetite and at present he is able to do some work. Mass has decreased in size considerably; breath sounds can be heard in right thorax as low as fourth interspace. Diagnosis: syphilitic hepatitis or pneumonia.

President of society asked Drs. Morgan and Porter, Jr., to conduct an examination of this patient and report their findings to society.

DISCUSSION

Dr. Morgan: I think this whole right side is solid. I believe this case to be one of chronic pneumonia (unresolved).

Dr. Porter, Jr.: (1) Negative blood; (2) positive Wassermann; (3) improvement under antisyphilitic treatment. I do not think that this is an unresolved pneumonia. I do not know what gives the shadow of the chest on Roentgen ray, it may be a thickened pleura. I believe this to be a syphilitic hepatitis. Dr. Cabot always said that in making the diagnosis of unresolved pneumonia you had better stay away from the autopsy room when the case is posted.

Dr. Duemling: I saw this case on March 3, 1913, and made a diagnosis of malignancy. The Roentgen ray seemed to show a mass which filled the whole right side of chest. I am satisfied that this is not a malignant case because from the extent of the disease at the time of my examination it would be impossible for this patient to be alive to-day.

Dr. Rhamy: I think a great deal of the Wassermann reaction. It is positive in a large percentage of cases.

Dr. Farnham presented following case history: Patient, male, aged 39 years; weight, 140 pounds; was riding bicycle and ran into automobile; was thrown on pavement, struck on head and cut scalp. Brought into hospital and died in a few minutes. No diagnosis was made as to cause of death. No fracture of skull; four ribs broken on right side. Roentgen-ray picture, however (post mortem), showed a broken neck. Patient was conscious until death.

Application of Dr. Edward Moser, Woodburn, acted on favorably by board of censors, presented. Motion carried that secretary cast unanimous ballot of society for Dr. Moser. Application of Dr. M. H. Hostetler presented and referred to board of censors.

Adjourned to luncheon given by hospital.

G. VAN SWERINGEN, Secretary.

MEETING OF SEPTEMBER 16

Society met in regular session in Assembly Room, with nineteen members present. Minutes of preceding meeting read and approved.

Clinical cases. Dr. McCaskey: Patient, male, aged 25 years, suffering from pulmonary disease. In four days had three hemorrhages. Said that the hemorrhages amounted to 15 ounces. This blood was measured by graduate nurse. At the time I saw the patient pulse was 72; temperature, 98 3/5; not particularly anemic. His physician had given him 15 c.c. of horse-serum. We were unable in a large amount of sputum to find tubercle. Character of sputum is that of a bronchiectasis.

The paper of the evening was by Dr. B. P. Weaver, on "Tuberculosis of the Appendix."

DISCUSSION

Dr. Grandy: Reported a case diagnosed as acute appendicitis; female, aged 21. Blood examination shows 6,000 whites; polynuclears, 87; small, 9; large, 4; eosinophiles, none. Mass in right side. On opening belly found appendix normal but the retrocecal glands were enlarged. Glands show no t. b.

Dr. Beall: It is not unusual for cases of peritoneal tuberculosis to begin with symptoms of appendicitis.

One case which was operated on and diagnosed as appendicitis proved to have a normal appendix, but postoperative symptoms proved the case to be peritoneal tuberculosis. Another case which developed signs of acute appendicitis, continued to have all the symptoms of acute miliary tuberculosis. I do not know how to distinguish between these kinds of cases.

Dr. McCaskey: I cannot avoid a certain element of skepticism as regards the origin of these cases of tuberculosis of the appendix. There is nothing more difficult than to exclude tuberculosis, even at autopsy. Where cancer is in evidence I am inclined to believe that the tuberculous disease is secondary to the cancer. In the report of the Phipps Institute, secondary tuberculosis in pulmonary tuberculosis is a comparatively common thing. Primary tuberculosis of the appendix is certainly rare. I cannot say how a differential diagnosis in acute tuberculous appendicitis can be made. It might be more easily done in the chronic variety. The failure of tuberculin to react occurs occasionally.

Dr. Rhamy: I have a section under the microscope from this case which Dr. Weaver reported. Tuberculosis of the intestine usually invades the surrounding lymph glands. I found in this case malignant lymph glands and tuberculosis of the other structures. In the hyperplastic tuberculosis of the bowel, ulceration is rare. Adami reports statistics in tuberculosis of the bowel in 2,000 autopsies; two cases of this type were probably primary disease. About one case in 1,000 is primary tuberculosis of the bowel.

Dr. McCaskey: A patient came under my observation with what was apparently sciatica; developed temperature of 101 degrees. I used a small dose of tuberculin and got a sharp rise. Found mass in abdomen and made a diagnosis of hypertrophic tuberculosis; operation proved the diagnosis. In another case of hypertrophic peritoneal tuberculosis, which proved inoperable, patient got symptomatically well.

Dr. Edlavitch: The occurrence of tuberculosis and malignant disease at the same time is not at all infrequent. One of the important points brought out is that cancer seems to predispose to tuberculous infection or vice versa. Trauma increases the growth of sarcomatous tissue; why may not in a similar manner the same conditions exist in cancer which would cause tubercle to grow?

Dr. Gross: I had a patient, male, aged 16, who came complaining of pain over entire abdomen; belly full of fluid, temperature, 102. Previous health good up to two weeks ago. A little excess of tenderness at McBurney's point, not marked. On opening abdomen found peritoneum studded with tubercles and belly full of blood. A gangrenous appendix was found.

Dr. Bruggeman: As a general rule when opening the belly for a tuberculous appendix it should not be removed for fear of permanent fistula resulting. Secondary tuberculous appendicitis is an uncommon thing. Primary tuberculosis of the appendix is rare and diagnosis should not be made without a complete post mortem in the subject. The statistics of the Mayo Hospital show how infrequently primary tuberculosis of the appendix occurs.

Dr. Weaver: If the primary focus is in the appendix these cases occasionally get well. No one should say that tuberculosis of the appendix is primary without a post-mortem examination. Dieulafoy reports a number of cases of primary tuberculosis of the appendix, the lungs being involved in only three cases. Another proposition which must be referred to is that a number

of cases have been of the bovine type of tuberculosis, showing that the infection was taken in by way of the mouth and intestinal tract.

Adjourned.

G. VAN SWERINGEN, Secretary.

DELAWARE COUNTY

SEPTEMBER

The regular meeting of the Delaware County Medical Society was held Friday, September 5, in the lecture room of the Muncie Public Library, President Dr. W. W. Wadsworth presiding. This meeting being of interest to the legal profession, several attorneys were present.

After the usual business routine Dr. Charles F. Neu of Indianapolis read a paper on "The Medicolegal Aspect of Insanity." Dr. Neu said in part: There is some conflict between scientific and legal medicine, and society is handicapped because of usages and terms formulated generations ago before the advent of real scientific terminology. The attempts to define insanity are legion, varying with the individual viewpoints, but unsatisfactory, for the most comprehensive are found, on test, to lack in one or more essentials. Generally speaking, when the mind is so impaired as to render a person incapable of forming an intent to do an act he is legally insane. The legal test for insanity is found in the conduct. Insanity is not a distinct entity. The criminal insane may be shrewd and capable of perfecting plans and carrying them to logical conclusions. By some, unsoundness of mind and insanity are interchangeable expressions, yet it is true that unsoundness of mind may arise from some slight defect of the nervous system which interferes with the normal reaction of the individual to his surroundings and which do not affect his social life in any important degree. Unsoundness of mind is inclusive of many definite conditions of greater or lesser relative importance. The lower types of normality differ so little from the higher types of imbecility and dementia that the boundary line is very indefinite, thus demonstrating why a standard definition of insanity is so difficult to formulate. By the use of the word monomaniac we usually mean an individual who is insane on one subject; yet the closest investigation shows that it is exceedingly rare to find a person sane in all respects save one. Other mental defects are usually present. Power of control over one's actions should determine individual responsibility and in reaching our conclusions we must consider the impairment of function due to advancing age or senility. The insane may have an excellent memory, and his mind during a violent attack or a protracted period of insanity does not always remain a blank. There are many erroneous views held by the laity regarding insanity. The main characteristic of insanity is considered, by some, to be existence of delusions, but delusions as well as insanity must be judged by the age, education, intelligence and environment of the individual; therefore, an insane delusion is a belief that is held incredible by others of his class and religious training. For one to become insane implies a change of habit; one who without reason indulges in conduct opposed to former principles and to the recognized standards of the community of which he is a citizen. One is

not justified in making a diagnosis of "moral" insanity in the absence of other intellectual defects, and insanity, at best, is only a relative term.

We ought to be better able to recognize some of the danger signals that are the heralds of approaching insanity. Our methods of dealing with the insane are inadequate and unsatisfactory. We ought to have in every county an institution where intelligent investigation could be conducted. The ordinary insanity commission is grossly inadequate. The time for perpetrating frauds on and telling untruths to the mentally unbalanced is passed, for many are keenly able to recognize an injustice. He is entitled to a square deal. It is time the medical and legal professions were meeting on a common ground in regard to disturbance of mentality. Lack of self-control or restraint is not always insanity. The treatment is not medical but educational and governmental, and the institutions equipped for this purpose offer the greatest hope of results. The patient should be taken away from the environment in which he became insane.

DISCUSSION

In opening the discussion, Dr. T. J. Bowles said: All criminality and viciousness are due to madness. Any individual who commits crime is insane to a corresponding degree. Every physician in this audience has his periods of exaltation and depression. Periodical impulses more or less are common to all of us. The place for an insane person who has money or friends who can care for him is in the home rather than in the public institution, the very surroundings of which are unnatural and depressing. Because of its long association with demonology the word insanity is, among the laity, still a term of disrepute with a stigma attached to it. Let us be more humane. The insane man is a sick man who needs and is entitled to our most careful consideration and care. A sound body is essential to a well-balanced mind.

Attorney Wilbur Ryman: In trials of persons, sane or insane, who are charged with crime, they should have the services of a board of experts before sentence is given. This is too important a matter to be entrusted to untrained laity. Murderers and other high-degree criminals, undoubtedly demented, are often unable financially to employ experts to trace their family history and heredity. The county attorney is too poorly paid to render adequate service.

Attorney Arthur D. McKinley: The purpose of the law is: (1) to protect the insane man against his own violence; (2) to safeguard his property rights, and (3) to protect society. Other phases of the subject belong to the realm of medicine.

Dr. Wadsworth: I have often been impressed with the incompetency and the arbitrary rulings of our so-called insanity commissions. I am certain that none of us would be willing to have a typical Delaware County Insanity Commission pass on our mentality.

Dr. Bowles: I wish to ask Dr. Neu this question: If a supposed lunatic, during a supposedly lucid interval, would make a rational will, coherent in language, perfectly equitable and in harmony with the natural ties of affection, should the will stand?

Dr. Neu: I believe it should.

Adjourned.

II. D. FAIR, Secretary.

OCTOBER

The regular meeting of the Delaware County Medical Society was held in the lecture room of the Muncie Public Library, Friday afternoon, October 3, with President W. W. Wadsworth, M.D., in the chair.

After the usual business routine Dr. O. E. Spurgeon introduced a clinical case, a patient with elephantiasis. The woman is 66 years old and the trouble has existed some twenty years. Both the upper and lower extremities are involved. The feet and hands are normal, the enlargement lying between the axillae and wrists, and between the groins and ankles. The excessive tissue appears to be true hyperplasia and weighs approximately 120 pounds. This estimate is made by comparing the present weight with a former, at which time the torso and head, feet and hands were practically the same size as they now are. The patient suffers much pain and the urinary excretion is below normal.

Dr. Geo. R. Green reported a very interesting case of sporadic infectious cerebrospinal meningitis successfully treated with Flexner's serum. The patient, a boy of 12, when first seen was comatose, involuntarily screaming with pain: had a high temperature and a beginning opisthotonos which soon became profound. Dr. Green determined to make an exploratory puncture, the accomplishment of which necessitated a general anesthesia. The needle was inserted in the fourth lumbar interspace, and turbid, opaque fluid spurted out of the canula. The appearance of the fluid confirmed the diagnosis so 50 c.c. was withdrawn and without removing the canula 30 c.c. of the serum was allowed to run in without force. The difference in the amounts withdrawn and injected diminished the intraspinal pressure. A specimen of the spinal fluid was examined by Dr. E. S. Green and found to be loaded with diplococcus meningitis. Twenty-four hours later the same procedure and dose was repeated and a microscopic examination of the fluid, slightly turbid, disclosed a great number of leukocytes and a lessened number of the meningococci of Weichselbaum. At this time the patient had lost a little of his muscular fixation but was still unconscious. Again a third puncture was made: 50 c.c. of fluid withdrawn and 30 c.c. of serum injected. On this occasion the boy was held in an incline of 45 degrees, head downward, in order that the serum might gravitate toward the cephalic end of the canal. Now the patient was somewhat relaxed and the fluid free from meningococci, and practically clear. Following this operation the boy had two hard convulsions, but that night he slept well and awoke the next morning conscious and hungry. Recovery was prompt and complete. One thing particularly noticeable in this case is that the macroscopic appearance of, and the microscopic findings in, the fluid were in keeping with the patient's clinical aspect.

Dr. Green is impressed with the value of an early diagnosis, not only in the interest of the patient alone, but prompt attention to a sporadic case may prevent an epidemic, for all epidemics of infectious cerebrospinal meningitis are invariably preceded by one or more sporadic cases in the same community or neighborhood.

Flexner's serum is indicated whenever the aspirated fluid appears cloudy.

It is good practice always to withdraw a greater amount of fluid than the bulk of serum to be injected.

The proper puncture of the spinal canal by one who is familiar with his anatomy is harmless.

In making a tentative diagnosis a Gram's stain is not essential to the recognition of diplococcus intracellularis meningitis; simple methylene blue is sufficient.

Prompt action saves life; delays are dangerous.

Dr. I. N. Trent, delegate; Dr. G. W. H. Kemper, councilor, and Dr. U. G. Poland, Vice-President of the Indiana State Medical Association, presented interesting reports of the recent meeting held at West Baden.

Adjourned.

H. D. FAIR, Secretary.

ELKHART COUNTY

The meeting of the Elkhart County Medical Association was called to order by President Kuhn at 8 p. m., September 4, in Dr. Kreiders' office, Goshen. Minutes of May meeting read and approved. Communication from Dr. W. T. Gott read by the secretary.

Applications of Drs. P. B. Work and L. A. Elliott for membership read and referred to board of censors. Motion carried that Dr. H. A. Barbour be granted a demit. Motion carried that Dr. Kirby be reimbursed \$3.75 for cash paid out at June picnic.

The first paper by Dr. Floyd M. Freeman, Goshen, on "Thyroid Insufficiency," opened with a discussion of the anatomy and physiology of the gland. Dyscrasias of the thyroid may be divided into two general heads: (1) the clinical picture termed Basedow's diseases, marked by pronounced tremor, tachycardia, digestive disturbances, psychic anomalies, polyuria, rapid growth of struma, anemia and exophthalmos in 50 per cent. of cases; (2) myxedema and cretinism with expressionless face, fat, flabby muscles, dry skin, lack of emotion, sluggish cerebration, sexual inactivity. Many gradations between these two extremes. Dr. Freeman elects to accept the opinion that the changes found in the thyroid are not the primary cause of these diseases but are results of a generally altered metabolism, the exciting cause of which is yet to be determined. In both exophthalmic goiter and in myxedema the essential condition of the gland is insufficiency. In connoting the symptom complex of a particular case the term *dysthyroidism* should be used in place of *hyperthyroidism* or *hypothyroidism*.

All investigators agree that myxedema is due to diminished or absent thyroid function. Cretinism and cachexia strumipriva also belong to this classification. Myxedema affects women about six times as often as men. It can be transmitted through the mother and may affect several members of one family. Or one member of a family may suffer from myxedema, another from exophthalmic goiter. Theoretically, exophthalmic goiter is the beginning stage of a succession of varying symptoms caused by thyroid insufficiency, the end stage of which is myxedema.

Emphasis placed on the coexistence of physiologic changes in the female generative organs and in the thyroid gland. Thyroid changes are in all probability part of a systemic change in which a combination of several glands of internal secretion takes part.

Diagnostic difficulties arise when symptoms are present without struma. Lenhart and Marine report five such cases and Barker three. Must differentiate from beginning diabetes and Bright's disease.

It is entirely probable that chlorosis, some intestinal indigestions, malnutrition, amenorrhea, obesity, eczema, backwardness in school, some cases of articular rheu-

matism and some cases of kidney and bladder disturbances are due to thyroid insufficiency.

Treatment.—Administration of thyroid extract or implantation of thyroid tissue cures myxedema and cretinism. Permanent damage to circulatory and central nervous systems in Basedow's disease may not be repaired. Symptomatic but not anatomic cures are effected by both medicine and surgery. Many cases of Basedow's disease have shown improvement under extract of thyroid treatment. Certain others have been aggravated and still other have remained stationary under the same treatment. Symptomatic treatment outlined.

Quoted mortality statistics from Marine and Lenhart:

Early operation, either pole ligation, excision of a lobe or complete enucleation as case demands, give the best results.

The second paper on "Hyperthyroidism," by Dr. Paul B. Work, reviewed nomenclature and history of the symptom complex called exophthalmic goiter. Pathology as described by Adami, Wilson and others, was summarized as follows: (1) hyperemia; (2) hyperplasia—increase in size and number of epithelial cells; (3) marked decrease of colloid; (4) infolding of epithelial lining; (5) more or less desquamation of lining epithelium and, (6) very slight connective tissue hyperplasia.

It has been shown by Marine and Lenhart that in addition to the change in the gland itself there is a general lymphoid hyperplasia which affects lymph-nodes, Peyer's patches, tonsils, adenoids, spleen and lymphoid foci in thyroid itself and there is also found an enlargement of the thymus—lymphatism—"status lymphaticus." No distinct findings in central nervous system.

Heart hypertrophied from "overwork," secondary change affecting valves, myocardium and arteries. Fatty metamorphosis in muscles and liver. High percentage of lymphocytes in blood.

Signs and symptoms: mentioned the classical ones—enlarged thyroid, pulsating exophthalmos with the various signs: tremor, tachycardia, moist skin, pigmentary change in skin, nervousness, muscular weakness, diarrhea, irritability, erythematous flushing, and in later stages dyspnea and arrhythmia.

As to the cause of these various manifestations of the disease, perhaps the oldest is that of (1) hypersecretion of the thyroid gland—it has been quite definitely shown, however, that this is not the whole story or in fact quite accurate. Other theories are: (2) hyposecretion; (3) that it is the result of a perverted or abnormal secretion rather than a mere excess or decrease of the normal secretion; (4) that it is of a purely nervous origin occasioned by a severe nervous shock; (5) that it is the condition resultant from persistence or hyperplasia of thymus in connection with changes in the thyroid. Melehor in 151 cases found that in 80 to 90 per cent. the thymus was enlarged; (6) that not only the thymus and thyroid, but also the general lymphoid structures are causatives; the general lymphoid hyperplasia and the constant lymphocytosis being evidences; (7) that irritability and weakness of the nervous system in addition to and in conjunction with an excessive secretion, either through loss of vasomotor control in the gland or nervous stimulation to increased secretion of it, are

the main factors; (8) that there is an excess of both adrenal and thyroid secretions as has been shown by presence of large quantities of adrenalin in the blood, in cases of exophthalmic goiter and increased blood-pressure; (9) Curschmann attempts to establish a relation between lipomas and the function of the thyroid; (10) that it is a perversion in the relationship of the secretions of all the organs which have internal secretion.

The conclusion that the various workers arrive at as a result of their hypotheses and experiments are quite confusing and contradictory. Almost all, however, appear to agree that the thyroid secretion is either primarily or secondarily responsible for the symptom complex and that the nervous element is of vital importance. There is considerable difference of opinion as to the results obtained from various lines of treatment of exophthalmic goiter, especially concerning the administration of thyroid gland, some holding that it increases the symptoms, others that symptoms are relieved. Marine and Lenhart affirm that the same anatomical changes are produced in exophthalmic goiter as in any other goiter by the use of desiccated thyroid, and that these changes are identical with those produced by iodine, namely, (1) involution to the colloid state; (2) increase in iodine content; (3) decrease in blood-supply.

Forchheimer has cured 82 per cent. with medical treatment—quinin hydrobromate gr. 5, ergotin gr. 1 t. i. d.—together with rest, psychotherapy, proper diet and exercise.

The various sera have given good results in some hands, in other have been worthless.

Everett Mingus reports three cases of exophthalmic goiter cured by rest in bed and 2-pound salt-bag resting on the enlarged gland.

A paper on "The Surgical Treatment of Hyperthyroidism," was presented by Dr. J. C. Fleming.

In order to estimate the value of any form of treatment of this condition, we must understand something of the natural course of the disease. Plummer in his analysis of goiter cases which have been accompanied by hyperthyroidism at the Mayo Clinic, has showed that they may be roughly divided into two classes: first, the non-hyperplastic toxic goiters, i. e., cases which began as simple goiters (adenomas, colloid goiters, etc.) and persist for a number of years without thyrotoxic symptoms and then suddenly develop symptoms of hyperthyroidism. In this class the average age of onset of hyperthyroidism was 36 years, fourteen years after onset of the goiter; second, hyperplastic goiter: cases which show a diffuse hyperplasia of the thyroid gland, accompanied in a very short time after the development of the goiter, with symptoms of hyperthyroidism. In this class the average age of onset of the goiter is 32 years and average age of onset of the symptoms of hyperthyroidism is 32 9/10 years; in other words, nine or ten months after onset of the goiter.

Natural Course of the Disease.—A considerable per cent. of both classes of these cases reach their maximum degree of intensity during the first year, usually by the end of the ninth month, the symptoms continuing with more or less severity for one or two years when improvement shows during the second to fourth years. A certain percentage die of hyperthyroidism without

showing any improvement. What this percentage is, is hard to determine. The ten cases which the author reports showed two of these rapidly fatal cases, which he thinks presents a fair average. Küttner analyzing cases at the Breslau Clinic found the medical mortality to be 35.7 per cent., and none of the surviving able to work. This does not agree, however, with the opinion of the majority of authorities. Nearly all agree that a certain percentage recover a fair degree of health under medical treatment but differ greatly in their opinion as to what this percentage is, placing it anywhere from 10 to 80 per cent. I believe, however, 30 or 40 per cent. would be a fair average. Hale White, who traced all the cases he could find which had been treated medically at Guy's Hospital during the last twenty years, found 80 per cent. recovered. Forchheimer reports seventy-six cases with something like 80 per cent. recoveries. On the other hand Strumpell says: "A few recover a fair degree of health." Osler says that surgical results are undoubtedly superior to medical, and turns his cases over if not improved at the end of three months. Billings and Preble refer most of their cases for operation. A considerable percentage of those cases which are treated medically continue in a state of invalidism with storms of hyperthyroidism at irregular intervals. I believe that this group will constitute at least 40 per cent. of cases.

What Can Be Expected of Surgical Treatment.—First, a mortality of 3 to 5 per cent., whereas medical treatment will give us a mortality of at least 10 per cent. Mayo and Kocher's mortality is now in the neighborhood of 2 or 3 per cent. Heinecke analyzing 500 cases from literature found a general mortality of 5 per cent. from operative procedures; second, a more or less complete recovery, depending on the amount of injury already inflicted by the thyroid poison and the judgment by the operator as to the operative procedure to be adopted, amount of thyroid tissue to be removed, etc. Seventy per cent. will be cured, 15 per cent. greatly improved, and 10 per cent. more or less improved; none made worse.

What Cases Should Be Operated.—It is of utmost importance to individualize. If a patient is to be submitted to medical treatment it is usually essential that she be able to abstain from work and be quiet for one, two or three years. Surgery does in a few weeks what it requires months to do without it. Osler's rule is a good one. Cases not improved at the end of three months should be turned over to surgery. All cases not improving under medical treatment should be given the benefit of surgery.

Operative Procedures and Indications for Each.—General principles: Success depends on a careful study of the patient's condition and the selection of the proper procedure for the individual case. The greater the degree of thyrotoxicosis the more conservative the procedure to be adopted, i. e., very bad cases should be treated with a Roentgen ray and injection of boiling water. Less severe cases, but still bad ones, by ligation of one or more poles. The average case requires removal of one lobe and isthmus, and if severe one-half the other lobe. The conservative measures (Roentgen ray, injection of boiling water, ligation of one or more poles) have to be followed usually by thyroidectomy. Following ligation they often get better for a while and then get worse. Thyroidectomy should be performed before they get worse. *Never operate during*

the height of a thyrotoxic storm. Preliminary to every thyroidectomy we should have a careful laryngoscopic examination to determine whether or not either recurrent laryngeal nerve is paralyzed, and also a careful Roentgen ray of the chest to determine the presence or absence of an enlarged thymus, which Crotti has shown to be of such great importance.

Danger Signals in Goiter Work.—First, tachycardia, a pulse of 130 or more; second, dilated heart (1 or 1½ inches outside nipple line). The condition of the heart may often be more accurately judged by the fatigue test of Tinker; third, nephritis; fourth, low blood-pressure. The above symptoms are urgent indications to proceed carefully.

The essayist then submitted ten cases most of which he had seen personally during the last few years, and gave the results of various modes of treatment. Two cured by prolonged use of the Roentgen ray, four cured by thyroidectomy preceded in one case by pole ligation. One case in which the symptoms of hyperthyroidism and Addison's disease were combined, which subsided with the administration of thyroidectin, and now, nearly ten years afterward, is apparently in good health. One case, who has been suffering from marked hyperthyroidism for past eight years, unimproved and contemplating thyroidectomy. Two fatal cases, one a maiden lady of 38, died after three years of most severe thyrotoxicosis. Another, a man of 65, who apparently improved for a while and then developed pneumonia, followed by intense thyrotoxicosis and death.

DISCUSSION

Discussion opened by Dr. I. J. Becknell, Goshen: Believed Dr. Porter's procedure of injection of boiling water is of benefit in selected cases. Dr. Becknell has given relief to a great many cases by rubbing thoroughly on the goiter an inunction of potassium iodid and vaselin. Has seen the tumor reduced under this treatment. Believes curing simple goiter deserves more credit than removing gland in late stage.

Dr. G. W. Kirby, Goshen: Has never had any result from local applications. Reported four cases: (1) chief symptom, rapid heart, was treated with Roentgen ray and high-frequency current with good results; (2) case of status lymphaticus. Young girl in getting ready for church was pricked with a pin. In five minutes she was dead. Autopsy showed nothing but enlarged thymus. (3 and 4) Hot water was injected without benefit. Believes condition known as status lymphaticus has not been explained. Shock to nervous system a big factor. Administration of iodine is dangerous. A physician prescribed 5-grain thyroid tablets, t. i. d., for a case which five days later died of acute thyroidism.

Dr. G. W. Spolm, Elkhart: Knows cases which have been worse after operation. Believes administration of iodine not therapeutic, but diagnostic measure. Galvanism is effective. Believes surgeon attempting operation should be skilled. Some rhinologists have taken up operative treatment of exophthalmic goiter.

Dr. M. K. Kreider, Goshen: Cases die of worn-out or dilated heart. Used spondylotherapy in a case in which size of gland has been reduced one half.

Dr. Floyd M. Freeman, closing: Emphasized fact that exophthalmic goiter is a surgical disease. Seventy per cent. get well after operation; 90 per cent. would get well if operated on early. Injection of hot water and pole ligation are simple procedures. When a

patient "goes bad" on the table, it is better to elevate rather than to lower head.

Dr. J. C. Fleming, closing: Must distinguish between simple goiter and hyperthyroidism. By administering iodine preparations a simple goiter may be changed to exophthalmic goiter. Should be very cautious about use of iodine. Surgery in selected cases is the treatment of choice.

Adjourned. JAMES A. WORK, JR., Secretary.

HAMILTON COUNTY

The Hamilton County Medical Society met at Noblesville, September 16. Dr. W. H. Williams, Lebanon, read a practical paper on "Various Phases of Gall-Stone Trouble." The next meeting will be held October 14, when Dr. William S. Tomlin, Indianapolis, will speak on "Diseases of the Tonsils."

Adjourned. J. E. HANNA, Secretary.

JAY COUNTY

The physicians of the Jay County Medical Society held their regular monthly meeting at the Public Library, Portland, September 12.

KNOX COUNTY

The Knox County Medical Society met in regular session at Vincennes on September 9. Papers were read by Drs. J. N. McCoy and Royce Davis, Decker, Ind. Following the business meeting a banquet was served at the Kaiserhof Hotel.

Adjourned. H. D. McCORMICK, Secretary.

LAKE COUNTY

A regular meeting of the Lake County Medical Society was held in the rooms of the Hammond Chambers of Commerce, Thursday, Sept. 11, 1913, at 8 p. m., Dr. Weis presiding.

At the annual meeting in December, 1912, a motion was passed setting apart one meeting each year for a public meeting at which time an oration in medicine should be delivered by some member. At that time Dr. W. F. Howat, Hammond, was chosen to deliver the address at the first meeting, and September was selected as the date. He chose as his subject, "William Harvey and His Immortal Work." His address was a masterly presentation of the life and work of one of the greatest of the early fathers of the art and science of medicine. The society requested that the essayist furnish a copy to the editor of THE JOURNAL that all the members of the state association might have the opportunity to read it.

Adjourned. E. M. SHANKLIN, Secretary.

LAPORTE COUNTY

The Laporte County Medical Society met in regular session at Michigan City, September 12, with Dr. F. V. Martin, president, presiding. Dr. C. E. Boys, Kalamazoo, presented a paper on "Pituitrin in Its Relation to Septicemia." The discussion was led by Dr. J. B. Rogers, Michigan City, and Drs. O. L. Sutherland and G. K. Osborn, Laporte. Dr. Charles Stoltz, South Bend, read a paper on "Intestinal Obstructions," discussion of

which was led by Dr. John Snyder, Michigan City, Dr. B. Howell, Laporte, and Dr. S. W. Hook, Wanatah.

Adjourned. H. H. MARTIN, Secretary.

MADISON COUNTY

JUNE

The Madison County Medical Society met in regular session in the Public Library in Anderson, June 24, 1913, at 4 p. m., with Vice-President Newlin in the chair, and eighteen members present.

Minutes of previous meeting read and approved.

Dr. F. F. Mendenhall was elected delegate to attend the annual session of the Indiana State Medical Association held at West Baden, September 25-26.

Dr. H. R. Allen, Indianapolis, gave an instructive lecture on "The Spine and the Diseases that Attack It," giving special attention to fracture. The discussion was interesting and profitable.

Adjourned. ETTA CHARLES, Secretary.

SEPTEMBER

The Madison County Medical Society met in regular session in the Public Library in Anderson, Sept. 23, 1913, at 4 p. m. The president being absent, Dr. Jonas Stewart took the chair. Dr. J. E. Hall was elected secretary pro tem.

Dr. Schmaus read a paper on "Ether," and Dr. I. Miley read a paper on "Immunity." Both papers were thoroughly discussed.

Adjourned. J. E. HALL, Secretary pro tem.

MARSHALL COUNTY

The Marshall County Medical Society met in regular session September 24, at 1:30 p. m., in the Plymouth City Hall, with eleven members present.

The minutes of the August meeting were read and approved. The communication from Dr. Johnson, Bourbon, was read and placed on file. The board of censors reported favorably on Dr. Harry Knott's application and he was elected to membership.

Dr. Parker read a paper on "The Diagnosis of Tuberculosis," which was thoroughly discussed by all present.

Adjourned. A. A. THOMPSON, Secretary.

NOBLE COUNTY

The Noble County Medical Society met at Kendallville on September 4, with thirty-five members present. The meeting was called to order at 1 p. m., after a sumptuous banquet.

Miss Gladys Mason, a vegetarian of New York City, who is on a hike from New York to San Francisco, gave a ten-minute talk.

Dr. Francis M. Perkins of Kendallville was admitted to membership, and applications for membership from Dr. Harold O. Williams of Kendallville and Dr. Horatio D. Luse of Ligonier were received and referred to censors.

Dr. J. L. Gilbert was elected delegate, and Dr. Donald Johnston, alternate delegate to the West Baden session of the Indiana State Medical Association.

Dr. Johnston presented a case of spina bifida in a child one week old, the tumor appearing in the dorsal region of the spine.

The Whitley County Medical Society presented the scientific program of the day. Dr. W. F. Grisier, Columbia City, read a paper on "The Relations of the Specialist and the General Practitioner." In the discussion of the paper the subject of "Fee-Splitting" was thoroughly gone over. Dr. D. S. Linvill, Columbia City, presented the subject, "Country Surgery," which was well discussed. The paper, "Selections," by Dr. J. W. C. Scott, was carried over until the next meeting.

The following resolution was adopted and ordered sent to Dr. W. S. Williams, Kendallville, who is convalescent from a recent operation:

"Resolved, That the Noble County Medical Society send congratulatory greetings to Dr. W. S. Williams, and that we hope for and expect a speedy recovery."

A vote of thanks was extended to the Whitley County Medical Society for the splendid program of the day.

Adjourned.

W. F. CARVER, Secretary.

PARKE COUNTY

The regular meeting of the Parke County Medical Society was held at Turkey Run on September 9. A sumptuous chicken dinner was served at 12:30, followed by the business session. Dr. Cuthbert presented a paper on "Metastatic Infection."

Adjourned.

A. B. LOCKRIDGE, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which those abstracts are based may be obtained from the American Medical Association, 535 North Dearborn Street, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

WHOOPIING-COUGH VACCINE (BORDET-GENGOU BACILLUS).—This vaccine is prepared from the Bordet-Gengou bacillus derived from a case of whooping-cough. Sophian-Hall-Alexander Laboratories, Kansas City, Mo. (*Jour. A. M. A.*, Sept. 6, 1913, p. 771).

ELECTR-Hg.—A colloidal suspension of mercury, equivalent to 0.1 per cent. metallic mercury rendered stable by sodium arabate. Electr-Hg is claimed to have an action similar to that of soluble salts of mercury. Injected intramuscularly, it is said not to produce pain or indurations. It is used intramuscularly, intravenously and also intraspinaly. Electr-Hg is marketed in the form of Ampules of Electr-Hg, 5 Cc., in a non-isotonized condition. The package contains

a physiologic salt solution with directions for the extemporaneous isotonzation of the preparation before the injection. Comar and Cie, Paris, France (*Jour. A. M. A.*, Sept. 13, 1913, p. 868).

MELUBRIN.—Melubrin is sodium 1-phenyl-2, 3-dimethyl-5-pyrazolon-4-amido-methan-sulphonate. It is closely related to antipyrin. Melubrin is white, almost tasteless and readily soluble in water. It is said to have almost no effect on the circulation or respiration in moderate doses, but to be a powerful antipyretic and analgesic. It is claimed to be useful in sciatica and other neuralgias and as an antipyretic in febrile affections. It is said to act similar to salicylates in acute rheumatism. Farbwerke-Hoechst Co., New York (*Jour. A. M. A.*, Sept. 13, 1913, p. 869).

ACNE BACILLUS VACCINE.—Each Cc. contains 50 million killed acne bacilli suspended in physiologic salt solution with 4-10 per cent. trikresol. Cutter Laboratory, Berkeley, Cal.

COLI VACCINE.—A suspension of the *Bacillus coli communis* in physiologic salt solution with 4-10 per cent. trikresol. Containing 50 million killed *Bacilli coli* per Cc. Cutter Laboratory, Berkeley, Cal.

PNEUMOCOCCIC VACCINE.—A suspension of mixed strains of the *Diplococcus pneumoniae* in physiologic salt solution with 4-10 per cent. trikresol. Containing 50 million killed pneumococci in each Cc. Cutter Laboratory, Berkeley, Cal.

STAPH-ACNE VACCINE.—A mixture of killed staphylococci and of killed acne bacilli in physiologic salt solution with 4-10 per cent. trikresol; each Cc. containing 500 million staphylococci and 50 million acne bacilli. Cutter Laboratory, Berkeley, Cal.

STAPHYLOCOCCIC VACCINE.—A suspension of the *Staphylococcus aureus*, *albus* and *citreus* in physiologic salt solution with 4-10 per cent. trikresol. A suspension of various strains of staphylococci containing about 500 million to each Cc. Cutter Laboratory, Berkeley, Cal.

PYOCYANEUS VACCINE.—A suspension of mixed strains of killed *Bacillus pyocyaneus*, in physiologic salt solution with 4-10 per cent. trikresol, 1 Cc. containing about 50 million killed bacilli. Cutter Laboratory, Berkeley, Cal.

STREPTOCOCCIC VACCINE.—A suspension containing in each Cc. 50 million of killed streptococci in physiologic salt solution with 4-10 per cent. trikresol. Cutter Laboratory, Berkeley, Cal.

TYPHOID VACCINE.—A suspension of killed bacilli in physiologic salt solution with 4-10 per cent. trikresol; containing 50 million killed typhoid bacilli of various strains in each Cc. Cutter Laboratory, Berkeley, Cal.

TYPHOID PROPHYLACTIC.—A suspension made from a single strain, viz., that employed by the United States Army. Each Cc. contains 1 billion killed typhoid bacilli. Cutter Laboratory, Berkeley, Cal. (*Jour. A. M. A.*, Sept. 13, 1913, p. 869).

ANTIGONOCOCCUS SERUM.—Marketed in 10 Cc. syringes. Lederle Antitoxin Laboratories, New York City.

ANTIMENINGOCOCCUS SERUM (ANTIMENINGITIS SERUM).—Marketed in 15 Cc. cylinders. Lederle Antitoxin Laboratories, New York City.

ANTISTREPTOCOCCUS SERUM.—Marketed in 50 Cc. cylinders. Lederle Antitoxin Laboratories, New York City.

ANTISTREPTOCOCCUS SERUM, POLYVALENT.—Marketed in 10 Cc. syringes.

ANTIPNEUMOCOCCUS SERUM.—Marketed in 50 Cc. cylinders and in 10 Cc. syringes. Lederle Antitoxin Laboratories, New York City.

NORMAL HORSE SERUM.—Marketed in 10 Cc. syringes and 100 Cc. vials. Lederle Laboratories, New York City.

SCARLET FEVER TREATMENT.—Marketed in four strengths in syringe packages, two vial packages and 20 Cc. vials. Lederle Antitoxin Laboratories, New York City.

SCARLET FEVER PROPHYLACTIC.—Marketed in packages of three syringes and in packages of three vials. Lederle Antitoxin Laboratories, New York City (*Jour. A. M. A.*, Sept. 13, 1913, p. 869).

ANTI-TYPHOID VACCINE (IMMUNIZING).—This vaccine is prepared according to Russel from the strain used in the U. S. Army. It is marketed in three syringes and in ampules. National Vaccine and Antitoxin Institute, Washington, D. C., (*Jour. A. M. A.*, Sept. 13, 1913, p. 869).

REFORM IN MEDICINES

TETANUS ANTITOXIN.—A study of statistics leaves no room for doubt that tetanic antitoxin is well worth while as a curative agent in developed cases. In its use as a prophylactic agent, it must always be kept in mind that tetanus antitoxin does not remain long in the body. Vaillard states that the protective influence in man lasts but one to two weeks. In those cases in which the complete removal of the infectious bacilli cannot be assured, a repetition of the injection is necessary. Cases of tetanus developing some weeks after a prophylactic use of antitoxin are occasionally observed, and are undoubtedly due to the neglect of this precaution (*Jour. A. M. A.*, Aug. 30, 1913, p. 687).

DIABETIC FOODS.—From an exhaustive examination of diabetic foods, made in the Connecticut Agricultural Experiment Station, Street and Mendel conclude that the following conditions should apply to such a product: 1. It should contain much less carbohydrate than is found in a normal food of the same class—certainly not over half as much. 2. The label should bear a correct statement of the percentages of protein, fat and carbohydrates present. 3. The amount of the different carbohydrates present should be declared on the label, that is, starch, sucrose, levulose, lactose, etc. 4. The processes of manufacture should be so standardized that uniformity of composition, within reasonable limits, will be maintained from year to year. 5. No statement should be placed on the label which would give the impression that any food in unlimited quantity is suitable for a diabetic patient. 6. In the advertisements of these foods emphasis should be put on the carbohydrate content rather than on the amount of protein present (*Jour. A. M. A.*, Aug. 30, 1913, p. 687).

THE THERAPEUTIC RANGE OF SALVARSAN.—Experience has shown that a complete cure of syphilis cannot be secured uniformly by one or two injections of Sal-

varsan or Neosalvarsan. But Salvarsan does effect what must be termed a *therapia magna sterilisans* in certain human diseases. This is true of recurrent fever which is caused by a variety of spirochete, frambesia or jaws, a tropical disease resembling syphilis and caused by a spirochete. Numerous infectious diseases of different nature are said to be favorably influenced by its use (scarlet fever, small-pox, glanders, etc.). Vincent's angina and other lesions due to oral spirochetes appear to yield rapidly to Salvarsan. Aleppo boil and other diseases caused by the organisms of the Leishmania group are also said to yield to Salvarsan (*Jour. A. M. A.*, Aug. 30, 1913, p. 686).

EMETIC ACTION OF DIGITALIS.—Cary Eggleston concludes that there is no valid experimental or clinical evidence that therapeutic doses of digitalis cause nausea or vomiting through local irritant action of the alimentary tract, but that there is much evidence that the vomiting is not caused by such local action. He states that there is experimental evidence that the nausea and vomiting resulting from therapeutic quantities of digitalis principles are due solely to their action on the vomiting center and therefore result only after the employment of a sufficient amount of drug. Eggleston concludes that it is fallacious and irrational to attempt to avoid these symptoms resulting from the oral administration of any given digitalis preparation by resorting to another preparation or to another channel of administration (*Jour. A. M. A.*, Sept. 6, 1913, p. 757).

DRUGS SOLD TO DISPENSING PHYSICIANS.—An investigation of drugs sold by "physicians' supply houses" has been made in the A. M. A. Chemical Laboratory. The products examined were morphin tablets, potassium iodid tablets, fluidextract of goldenseal, Fowler's solution, zinc ointment and fluidextract of digitalis. The report concludes that although the examinations do not cover a wide field, they are sufficient to show that the random charge of sophistication and adulteration which has been repeatedly made against "physicians' supply houses" is unjustified. On the other hand, the examination shows that the products put out by this class of firms, without being sold at a materially lower price, are less reliable than those of the pharmaceutical houses. The report then closes with a discussion of the "specialties" put out by this class of firms: "When one compares this class of preparations as put out by the two classes of firms one is struck with the fact that the specialties of the 'physicians' supply houses' are a little more unscientific, a little more devised to mislead or cheat the user, are a little more brazen in their imitation of fraudulent and worthless proprietaries and more deliberately aimed to satisfy the unthinking physicians than are those of the 'regular' pharmaceutical manufacturers" (*Jour. A. M. A.*, Sept. 13, 1913, p. 855).

PROPRIETARIES IN GREAT BRITAIN.—The National Insurance Act under which many now receive practically free medical service provides that, under certain conditions, the physicians who work under the act, may receive some of the funds set aside for the purpose. This has tended to make unpopular the prescribing of expensive proprietaries rather than the cheaper official preparations. Those medical journals which derive a large portion of their advertising income from proprietary medicine advertisements are not feeling happy. These publishers are between the devil and the deep,

blue sea. If they come out openly in favor of prescribing high-priced proprietaries in place of the lower-priced official drugs, they are asking their subscribers to do something which is not only unscientific but also contrary to the financial interest of the physicians working under the act (*Jour. A. M. A.*, Sept. 13, 1913, p. 872).

THE FRIEDMANN INSTITUTES.—The Friedmann cure for tuberculosis is utterly discredited. All reliable reports regarding the treatment of patients by Friedmann's method seem to show either that it is actually injurious or else that it is less efficient than other well-known and less dangerous means of treatment. The scheme of floating Friedmann institutes in different states successfully evades any reprisal on the part of the federal government. It therefore devolves on the various states to take such action as is necessary to prevent the heartless exploitation of the unfortunate consumptives within their borders (*Jour. A. M. A.*, Sept. 13, 1913, p. 874).

DISEASE SUPERSTITIONS.—The belief is common among primitive and unlettered people that there is a specific remedy for every disease—an herb for every ill. The people must be taught that disease is not an accident or a dispensation of Providence or the infliction of an evil spirit, but the result of environment and the result of the mode of living. They must learn that health does not return by magic or by magic compounds; but must be restored by a personal battle against disease (*Jour. A. M. A.*, Sept. 13, 1913, p. 884).

DIPHTHERIA ANTITOXIN AS AN IMMUNIZING AGENT.—Diphtheria antitoxin is quite generally used as an immunizing agent. Usually a dose of 500 units is given to all the children in a family in which a case of diphtheria has developed. In such instances no attention is paid to the possibility of anaphylaxis on later injection of diphtheria antitoxin. Indiscriminate immunization by the injection of serum is not advised by any writers on this subject. To avoid serious results from anaphylaxis in cases in which known immunizing doses have previously been given, it is customary to inject first a small dose of from 5 to 8 minims, and if no symptoms develop, to follow this within an hour with the full dose which it is desired to inject. (*Jour. A. M. A.*, Sept. 13, 1913, p. 885).

CLINICAL INVESTIGATIONS.—From the title of the Council on Pharmacy and Chemistry the erroneous inference is often drawn that it deals with laboratory matters exclusively and that questions of therapeutics receive no consideration. While chemical or pharmacologic tests are sufficient to disprove many claims for proprietaries, clinical investigations are made when needed, either by the clinicians of the Council or by the Council's Staff of Clinical Consultants. The final decision that natural salicylates are not superior to the synthetic kinds was reached by means of clinical trials carried out under the direction of the Council's Committee on Therapeutic Research. This illustrates the broad scope of the Council's work (*Jour. A. M. A.*, Sept. 20, 1913, p. 968).

NATURAL AND SYNTHETIC SALICYLATES.—The investigations carried out under the auspices of the Council's Committee of Therapeutic Research have shown: 1. Contrary to certain statements in the older literature, there is no difference in the toxic dose for animals between "natural" sodium salicylate, the most highly

purified synthetic, and the cheapest commercial sodium salicylate now found on the market. 2. The evidence for the claimed clinical differences, as found in medical literature, is extremely unsatisfactory and inconclusive. 3. No significant chemical impurities are present in commercial synthetic salicylate. 4. No difference can be detected clinically, either in the therapeutic or toxic effects, if the comparison is made under conditions which strictly exclude personal bias. The Council therefore concludes that there is no difference in the actions of "natural" and synthetic salicylates, and that statements that differences exist are unfounded (*Jour. A. M. A.*, Sept. 20, 1913, p. 979).

THE GOVERNMENT AND RADIUM.—The United States government should investigate the usefulness of radium and radio-active water because the government is exploiting, in an entirely unjustified manner, the radio-activity of the waters of Hot Springs, Arkansas. While the Interior Department appears to be in possession of the information, this has not been made public (*Jour. A. M. A.*, Sept. 20, 1913, p. 969).

CALOX.—The name "Calox" and the past claims of the exploiters, McKesson & Robbins, have led to the belief that this tooth powder contained calcium peroxide. An examination made in the A. M. A. Chemical Laboratory demonstrated that no calcium peroxide is now present and that it contains a soluble compound, probably sodium perborate, instead (*Jour. A. M. A.*, Sept. 30, 1913, p. 978).

NON-VIRULENT T. B. VACCINE.—Regarding the Non-Virulent Tubercle Bacillus Vaccine put out by G. H. Sherman we have nothing but the word of the promoter regarding what it is or what it is good for. One is led to believe by the advertising matter, without specifically being told, that this vaccine is the same as, or a modification of, the notorious Friedmann preparation. According to the promoter the organism proposed as a remedy has been rendered non-virulent by killing it and converting it into a vaccine. There is no reason to expect more of this preparation—agreeing that it is what its promoters think it is—than of the tuberculins already well known. It is to be hoped that physicians will bear in mind the fiascos of prematurely announced discoveries and give this Friedmann shadow a wide berth (*Jour. A. M. A.*, Sept. 20, 1913, p. 979).

BOOK REVIEWS

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at Mercy Hospital, Chicago. Volume II, Number 3 (June, 1913). Octavo of 185 pages, 62 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published bi-monthly. Price per year; Paper, \$8.00. Cloth, \$12.00.

This number is again another practical one starting off as it does with such subjects as Obturation of the Ilem Du Due to a Large Gall-Stone, and Intestinal Stasis Caused by a Band of Adhesions. Other practical subjects dealt with are Tenoplasty of the Flexor Tendons of the Fingers, Subcoracoid Dislocation of the Humerus, Fractures of the Femoral Neck and of the Scaphoid and Semilunar Bones, Pott's Disease, Cholecystitis, etc. There are a number of very interesting and

instructing skiagrams and illustrations; but once again we desire to call attention to the persistent misuse of the term "anatomic neck of the femur" that seems peculiar to Dr. Murphy. This, however, detracts but little from the practical value of the work.

THE MODERN TREATMENT OF NERVOUS AND MENTAL DISEASES. By eminent American and British authors. Edited by William A. White, M.D., Superintendent of the Government Hospital for the Insane, Washington, D. C.; Professor of Nervous and Mental Diseases in the Georgetown University and in George Washington University; Lecturer on Mental Diseases in the U. S. Army and U. S. Navy Medical School, Washington, D. C., and Smith Ely Jelliffe, M.D., Ph.D., Adjunct Professor of Diseases of the Mind and Nervous System in the Post Graduate Medical School and Hospital; Visiting Neurologist to the City Hospital; Consulting Neurologist to the Manhattan State Hospital, New York, N. Y. Two octavo volumes, containing about 900 pages each, illustrated. Per volume, cloth, \$6.00, net. Lea & Febiger, Philadelphia and New York, 1913.

In the publication of this comprehensive work, Drs. White and Jelliffe have executed a work that will fill a long want in the therapeutic problems of neurology and psychiatry. In it they view the whole situation as one of mutually correlated parts and present a practical and coherent treatise addressed not alone to the medical practitioner, but also to the educator, the legislator, the jurist, the student of the problems of criminology, of immigration and of dangerous trades, the hospital superintendent, the social worker, the military man, and lastly, the intelligent layman. Throughout the work the attempt has been to correlate the various phases of nervous disorders into a practical, working thesis with particular stress laid on the therapeutic side.

Perhaps the most interesting and valuable single feature of the work is the effort toward the prophylactic treatment of nervous and mental diseases, and in Volume I we find a most commendable discussion of that all-important subject of eugenics which has just come into its own in our present-day study of neurologic questions. Likewise the discussions on education, feeble-mindedness, and sex education are such as are merited by their primal importance in this branch of medicine.

The authors rightly take the stand that the subject of insanity covers such a multiplicity of conditions that it is no more definite in its indications than would be the term "lung disease." Therefore they discuss the treatment of definite psychotic pictures, utilizing such nosological conceptions as best serve the purposes of convenience and offer the most rational form of expression.

Whenever possible to do so the pathological data in neurology are considered along with the therapeutics and the clinical picture, whereas in mental affections the disturbed conduct has to form the criteria for clinical types.

Because of the immensity of the subject in hand, chapters on general topics of therapy, such as massage, electricity, hydrotherapy, dietetics, etc., have been eliminated as being of somewhat elementary form and more properly belonging to special works on such subjects.

Volume II takes up the subjects of neuralgias and neuritides, injuries of the peripheral nerves, muscular atrophies and dystrophies, headaches, spasmodic disorders, epilepsies, the meningitides, syphilitic diseases of the nervous system, the use of salvarsan and neosalvarsan, cerebral hemorrhage, embolism and thrombosis, disorders of expression, stuttering, diseases of the cranial nerves and lesions of the spinal cord, diseases of the optic thalamus, midbrain and cerebellum, paralysis agitans and multiple sclerosis, the toxemias of dangerous trades and drugs, and the surgery of the brain and spinal cord.

The rich experiences of both Drs. White and Jelliffe in the study and care of nervous and mental disorders are in themselves sufficient warrant to assure the profession of the extreme worth of this publication. It is fortunate indeed to have a well-digested yet comprehensive work on the treatment of these subjects, but far better yet is it to have such a work combined with such practical and present day problems worked out as we find here discussed. All students of eugenics and all social workers could ill afford to pass by this work. It is to be hoped that the medical profession will award it the very hearty welcome that is its just desert.

THE NARCOTIC DRUG DISEASES AND ALLIED AILMENTS, Pathology, Pathogenesis and Treatment. By Geo. E. Pettey, M.D., Memphis, Tenn., Member Memphis and Shelby County Medical Association, Tri-State Medical Association of Mississippi, Arkansas and Tennessee; also Mississippi Valley Medical Association, Southern Medical Association and of the American Society for the Study of Alcohol and Narcotic Diseases. Price, cloth bound, \$5.00, net; 516 pages; illustrated. Philadelphia: F. A. Davis Company, 1913.

Like most works on these diseases, this one emanates from the hand of one long experienced in their treatment and whose convictions are aroused by and settled on the fact that the victims of such diseases are really sick rather than criminal. This particular author treats narcotic addiction as a toxemia of drug or auto-intestinal origin and hence believes the management and treatment of such to belong to the field of internal medicine rather than to that of neurology. Throughout the work one finds ever-present emphasis being laid on elimination as the most potent therapeutic factor, but space is also devoted to the treatment of various acute ailments occurring in narcotic and alcoholic habitués, to the withdrawal of narcotics after prolonged use during acute ailments, the management of infants born in drug-using mothers, treatment of delirium tremens and "sobering-up" the victims of acute alcoholism.

If nothing more, the work is distinctly practical and should prove of decided utility to those who undertake to treat this malady.

TRANSACTIONS OF THE FIFTH INTERNATIONAL SANITARY CONFERENCE OF THE AMERICAN REPUBLICS, held in Santiago de Chile, Nov. 5 to 11, 1911. Published and distributed under the auspices of the Pan-American Union, John Barrett, Director-General, Washington, D. C.

This little work is simply a published record of the proceedings of this conference and deals with such subjects as are peculiar to the various communities from which delegates are sent.

DISEASES OF THE STOMACH, INCLUDING DIETETIC AND MEDICINAL TREATMENT. By George Roe Lockwood, M.D., Professor of Clinical Medicine in the Columbia University; Attending Physician to Bellevue Hospital, New York. In one octavo volume of 624 pages, with 126 engravings and 15 plates. Cloth, \$5.50 net. Lea & Febiger, Philadelphia and New York, 1913.

This new work on the stomach is unique in that it was entered on largely in a spirit of independence from a stereotype grouping of subjects, and is based very largely on the results of the author's own experience. Due consideration has been given to such accepted teachings as are at variance with the author's ideas and the opposing views given free discussion.

The advances along the lines of skiagraphy and the physiology of alimentation are continually making room for newer and more exact treatises on the diseases of the stomach and intestines. This particular work is to be commended on the space given to illustrations and to treatment, and for this reason would appeal not only to the general practitioner but to the specialist as well. It is unfortunate that the stereoscopic radiograph opposite page 410 has not been put in such form as to be capable of stereoscopic reading.

In the treatment of gastroptosis little space is given by the author to the psychic side, which is an almost universal complication of this unfortunate malady. The time has come when we must recognize that there is much in the personality of the medical attendant, in the encouragement he affords these sufferers and in his ability to handle tactfully all of the many details of their care. Latterly the journals have been filled with most excellent articles concerning the orthopedic treatment that should follow attempts at surgical relief for these conditions and have made a commendable appeal for team-work between surgeon, internist and orthopedist. Not enough space is here afforded to this subject.

All told, this work should take its place among the other good texts on diseases of the stomach because of the rich experience afforded by its author.

THE MODERN HOSPITAL; ITS INSPIRATION; ITS ARCHITECTURE; ITS EQUIPMENT; ITS OPERATION. By John A. Hornsby, M.D., Secretary Hospital Section, American Medical Association; Member American Hospital Association, etc., and Richard E. Schmidt, Architect, Fellow American Institute of Architects. Octavo volume of 644 pages, with 207 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Cloth, \$7.00 net; half morocco, \$8.50 net.

On the perusal of this most excellent resume on the modern hospital, one is struck with the needlessness or the apology contained in the preface by the joint authors. While the work may not be a decided literary success or a statistical compilation, yet it is not only interesting but valuable to all interested in the management and welfare of hospital institutions. It cannot be read with anything but a very distinct recognition of the familiarity of the authors with their subject, which must have been based on years of very close attention to details of both management and construction. There are so many things contained in the context with which the reviewer heartily agrees that it is difficult to pick out individual instances of such. Perhaps one of the most striking truths dwelt on by the authors is the economy in the employment of a hospital superintendent of such capability as will far more than compensate for his high salary through his ability to save the institution money in the purchase of supplies, in economic operation of the plant, in careful dietetic

management, and, as occasion demands, in high-grade training-school maintenance. The time has come, as the author says, when the responsibility of a hospital to the public demands the highest type of efficiency, and this is particularly true in those institutions depending to a greater or lesser extent for their existence on public charity. A man has a right to know to what purpose the money he is about to give is to be used, not only in the abstract but in the concrete details of the work of the institution toward which his aid is solicited. Naturally if he is at all interested, he does not care so much for the events of the day, but he is looking toward the good that will be accomplished through his efforts in the years that will follow his existence, and in so far as those interests are regarded, just so far will his interest be aroused.

The whole work is so filled with details of immense value to those interested in hospital management and occupies a place so unique in this field that such individuals can ill afford to be without it.

PROGRESSIVE MEDICINE, a Quarterly Digest of Advances, Discoveries and Improvements in the Medical and Surgical Sciences. Edited by Hobart Amory Hare, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia. Assisted by Leighton E. Appleman, M.D., Instructor in Therapeutics, Jefferson Medical College, Philadelphia. Volume III, Sept. 1, 1913. Lea & Febiger, Philadelphia and New York.

This number includes the usual subjects of the September number: Diseases of the Thorax and Its Viscera by Ewart, Dermatology and Syphilis by Gottheil, Obstetrics by Davis, and Diseases of the Nervous System by Spiller. As is his custom, Ewart contributes a very considerable space to the subject of pulmonary tuberculosis, physical diagnosis and to the discussion of the cardiovascular diseases. His section closes with a few pages devoted to a consideration of death by electric currents and by lightning.

Gottheil's section on dermatology and syphilis is interesting from the standpoint of his discussion on salvarsan. He ventures the prophecy that before long mercury and salvarsan will be combined in such a way as to be capable of administration intramuscularly at the same time. Strangely enough, neither in this section nor Spiller's section on nervous diseases is there any mention made of the autoserotherapy for tabes, which is now receiving such marked attention.

One of the interesting features in Davis' section on obstetrics is the use of pituitrin for the differential diagnosis between pregnancy and labor, the differential point being in the fact that the administration of pituitrin to the woman in labor will in the large majority of cases be followed by uterine contractions that keep up, while in the pregnant woman not yet in labor the primary contractions do not last.

THE SURGICAL CLINICS OF JOHN B. MURPHY, M.D., at Mercy Hospital, Chicago. Volume II, Number 4 (August, 1913). Octavo of 206 pages, 49 illustrations. Philadelphia and London: W. B. Saunders Company, 1913. Published Bi-Monthly. Price per year: Paper, \$8.00; Cloth, \$12.00.

This number is characterized by a rather unusual amount of bone work, to which Dr. Murphy is now contributing so much. By far the most beautiful contribution in this number is that of the skiagraphic demonstration of the blood-supply in and around the joints by means of arterial injection with a red-lead emulsion.

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FORT WAYNE, IND., NOVEMBER 15, 1913

NUMBER 11

ORIGINAL ARTICLE

THE ROENTGEN RAY AS AN AID IN THE DIAGNOSIS OF GASTRIC CANCER AND ULCER*

R. D. CARMAN, M.D.
Mayo Clinic
ROCHESTER, MINN.

In a paper on "The Operative Treatment of Cancer of the Stomach" read before the Section on Obstetrics, Gynecology and Abdominal Diseases, American Medical Association, Minneapolis, June, 1913, W. J. Mayo stated that "The early diagnosis of cancer does not depend on any sign or symptom due to cancer itself, but on the mechanical conditions produced by the growth. Therefore, in cases of suspected cancer of the stomach the recognition of such mechanical conditions should be the first aim of the diagnostician." In enumerating the signs and symptoms he has placed first the presence of a palpable tumor in 67 per cent.; second, food remnants in 53.3 per cent., and third, the Roentgen ray.

The work of the last few months at the Mayo Clinic with the Roentgen ray has necessitated a change in the order of importance of these signs, the Roentgen ray showing diagnostic signs in 93 per cent. of the cases. This fact is very encouraging, as it will mean an earlier diagnosis with earlier surgical interference and a higher percentage of cures. In gastric ulcer the radiologic diagnosis is less certain, but even here approximately 65 per cent. show diagnostic signs, and this percentage will probably be materially increased in the future.

A discussion of the numerous and varied tech-

niques now used in the radiologic examination of the digestive tract would here be superfluous, but a brief description of our present routine at the Mayo Clinic, on which the following observations are based, is necessary for clarity.

TECHNIC

Having taken an ounce of castor oil the evening before, the patient reports in the morning without breakfast. He is then given an ordinary portion of breakfast cereal into which 2 ounces of barium sulphate has been well mixed, together with a little sugar and cream. He is directed to abstain from further food until after the examination and to return six hours later. He is then stripped down to the hips; the screen is placed against the abdomen and the presence or absence of residue in the stomach from the morning meal noted.

The patient now drinks rapidly 6 or 8 ounces of water containing 2 ounces of bismuth subcarbonate, well stirred. Its entrance and descent into the stomach are carefully watched. When all has been drunk, the observer palpates toward the pylorus, and is often able to drive a quantity through into the duodenum, thus visualizing it. He then presses the bismuth in the stomach upward, watching the outline of the greater and lesser curvatures.

Sixteen ounces of potato-starch pap¹ containing 2 ounces of bismuth subcarbonate and flavored

¹ In a recent paper I acknowledged the debt we owe to Rieder of Munich who, in 1904, first used an opaque salt (bismuth subnitrate) in the Roentgen-ray examination of the human gastro-intestinal tract. While the records indicate this to be true, my attention has again been directed to the fact that, seven years previously, Cannon employed bismuth in his investigations on animal digestion, thus establishing the priority of an American in this field.

1. This is made with potato starch (or potato flour), which can be bought at any grocery store for ten cents a package. For making a pap of creamy consistency one or two tablespoonfuls is dissolved in 6 or 8 pints of water, brought to the boiling point and allowed to cool. If too thick more water may be added. If too thin more potato starch is needed. It is then filtered through a tea strainer to remove all lumps.

* Read before the Indiana State Medical Association, West Baden, Sept. 24-25, 1913.

with syrup of raspberry is then drunk by the patient. Usually this fills the stomach quite well, outlining it clearly. Irregularities which may have been previously observed with the bismuth water are palpated to determine their nature and permanence. Mobility and peristalsis are also determined. Plates are then made, the patient standing with his abdomen against the plate holder, with the upper edge of the plate at or near the nipples.

After the observer becomes familiar with his technic, has followed a large mass of material to operation and acquired confidence through confirmation of his diagnosis, he will find that prolonged examinations are neither necessary nor desirable. Our total-screening time for a patient very rarely exceeds five minutes, and in the majority of cases the screening is finished within two or three minutes, because signs of gastric lesions revealed by the Roentgen ray are relatively gross, readily seen, and appear quickly or not at all. Errors in diagnosis are due more often to seeing too much rather than seeing too little, and this sort of error is apt to be the consequence of a lengthy inspection. Besides, with long study of a case, the observer tends to lose his sense of proportion—the little things are emphasized at the expense of the big ones.

The Roentgen diagnosis of gastric lesions is based on departures from the normal form, tonus, position, motility, capacity, mobility, contour and peristalsis of the stomach, together with certain extraordinary phenomena, such as filling defects, incisurae and diverticula.

A better understanding of abnormal conditions will perhaps be aided by a condensed review of the normal appearance.

THE NORMAL STOMACH

As to form two general types of stomach are met with, the steer-horn and fish-hook. The steer-horn, as the name implies, has some resemblance to the horn of a steer, being broadest at its base or upper pole, the cardia, and narrowing toward the pylorus, which is its most dependent portion. This type is relatively infrequent, and when found usually occurs in association with a deep chest and broad costal arch, such as is seen occasionally in muscular men and more rarely in women.

The far more common fish-hook type is usually less narrowed in its pyloric portion than the steer-horn, has a more uniform width and its midportion is more dependent, resulting in a J or hook shape. It occurs in nearly all women and in many men, and is found almost invariably wherever the habitus enteroptoticus of Stillé is found.

Tonus is a measure of the ability of the gastric musculature to maintain tonic contraction. The orthotonic, or normal toned, stomach grasps its contents firmly and hence is of tubular form, whether the amount of ingesta be large or only moderate. Exaggerated, diminished and absent tone are designated respectively as hypertonic, hypotonic and atonic. The hypertonic, usually of the steer-horn type, occasionally the fish-hook, is not only of small diameter but is short and held well up in the abdominal cavity. The hypotonic is rather broad at its lower pole and the bismuth tends to settle below the cardia. The atonic stomach, seen only rarely, hangs as a flaccid bag with a basin-like lower pole; the walls of the lower cardia and upper media are more or less apposed, and the gas bubble is fusiform in shape.

The position of the stomach depends somewhat on its form and tonus. The steer-horn is high and obliquely placed. Its lower border is well above the umbilicus. The cardia and media of the fish-hook stomach usually hang almost vertically, the pyloric portion curving horizontally to the right and then upward. Its lower pole is at or near the umbilicus. In either form the normal position of the pylorus is assumed to be about an inch above and an inch to the right of the umbilicus.

The motility of the stomach is its emptying power. The time of evacuation depends, of course, on the character of the food, carbohydrates making their exit earlier and proteids later. Experience has shown that failure of the stomach to clear itself of certain barium or bismuth salts within six hours is indicative of a pathologic condition.

Twenty-four to thirty fluid ounces (720 to 900 c.c.) of ingesta will fill the average adult stomach without discomfort. A capacity markedly less or markedly greater than this is usually abnormal.

The stomach is fixed only at its cardia and pyloric ends. Between these points it should be quite freely mobile to palpation.

The gastric contour is normally regular, being broken only by the incisura cardiaca, a slight indentation on the greater curvature below the cardia, the incisura angularis, a deeper depression on the lesser curvature at the proximal limit of the vestibule and by peristaltic waves. The gas bubble shows as a semi-elliptic, sometimes fusiform, transparent area in the cardia above the level of the esophageal opening.

On the greater curvature a peristaltic wave begins as a shallow depression at the incisura cardiaca, which grows deeper as it progresses to the vestibule. On the lesser curvature the wave

is deepest and traverses a short distance from the cardia to the incisura angularis which it replaces. The vestibule disappears by concentric contraction and is immediately succeeded by a new vestibule.

CANCER

The radiologic signs of carcinoma of the stomach I would arrange in the order of their relative importance as follows:

1. Filling defects.
2. Altered pyloric function. (a) Gaping of the pylorus. (b) Obstruction of the pylorus.
3. Advanced position of the six-hour meal.
4. Absence of peristalsis from involved areas of the wall of the stomach.
5. Diminished mobility; loss of flexibility.
6. Diminution in size of the stomach.
7. Antiperistalsis.

The filling defect is a sign of cardinal import and practically indispensable in the Roentgen-ray diagnosis of carcinoma. It is occasioned by the projection of the tumor mass into the lumen of the stomach, and when filled with bismuth the visualized contour of the gastric lumen shows a corresponding irregularity. Obviously, filling defects vary in size according to the extent of involvement. They also vary in appearance somewhat, according to the character of the cancer. The encephaloid (medullary) carcinoma produces large, usually multiple, irregularities, while in the scirrhus type the indentations are very small, even absent, although the concentric narrowing may greatly lessen the caliber of the stomach, especially at the pyloric end, and give it a funnel or retort form, also diminishing its capacity. Invasion of the media by the growth may result in a marked hour-glass stomach, the loculi being united by a more or less tortuous canal.

True filling defects must be carefully differentiated from indentations of the wall of the stomach by a gas-filled colon, by adjacent extrinsic tumors, notably those of the liver, spleen, colon and mesentery and by spasm. The splenic flexure, in spite of preparation by purging, will often be distended with gas and give the adjacent greater curvature of the stomach a somewhat ragged aspect. By palpation during the screen examination the stomach can be pushed away from the colon, causing this raggedness to disappear, or at least show its character. Filling defects caused by tumors external to the stomach deforming its contour are less easily differentiated. However, such filling defects may change in appearance with slight palpation, or even with respiratory movement. During the screen examination the intimate relation of a palpable

tumor mass to the stomach and its correspondence to a filling defect in the gastric outline may sometimes be determined. The deformity produced by spasm, most often the hour-glass, is sharply delineated, in contrast with the usually indefinite shadings of a tumor-produced filling defect. Frequently it relaxes on energetic manipulation. Antispasmodics such as belladonna, given for two or three days prior to a second examination, will generally cause such a spasm to disappear.

In the cardia a filling defect may deform the normally regular gas bubble, the tumor outline showing more or less clearly. Examination of the patient recumbent, in which position the cardia is more completely with bismuth, may show such filling defects in stronger relief.

Alteration of the pyloric function is an almost invariable accompaniment of gastric carcinoma, and may reveal itself in either of two quite opposite ways, namely, free and continuous patency, or marked obstruction.

In the carcinomatous stomach the pylorus, whether because of actual stiffening by infiltration or by reason of lessened acidity of the gastric contents, often remains gaping and the bismuth ingesta flow freely and continuously through it.

On the other hand, pyloric obstruction, varying in degree with the situation and size of the tumor, is also a common result of cancer. It is evidenced by a distinct, often large, residue from the six-hour meal.

Obstruction may occur at any point in the lumen from the cardia to the pylorus. An hour-glass stomach may show a six-hour residue in its upper loculus. High obstruction tends to dilatation of the esophagus, which may be quite marked in obstruction at the cardia. If there be no obstructive condition, the "head," that is to say, the most advanced portion of the six-hour meal in the intestines will occupy a position more or less proportionate to the degree of acidity. Ordinarily at or near the cecum after six hours, it may be accelerated by the hypoacidity incident to carcinoma of the stomach. In such cases it may be found anywhere from the hepatic flexure to the rectum, quite commonly in the transverse colon or at the splenic flexure. While this phenomenon is, strictly speaking, only a gross measure of the acidity, it is an item of corroborative value.

The peristalsis of a carcinomatous stomach often shows certain departures from the normal. Peristaltic vigor is generally proportionate to the degree of acidity, and as diminished acidity is a common accompaniment of carcinoma we often find in this latter condition a notable diminution

in force and frequency of the peristaltic waves. However, in the case of recent pyloric obstruction the effort at compensation may show itself in quite vigorous contractions.

More important is the interruption of peristaltic waves by carcinomatous infiltrations. A wave will progress to the affected area, skip it and take up its course beyond.

Lessened mobility occurs sufficiently often as a result of carcinoma invading adjacent structures, thus more or less fixing the stomach, to justify its inclusion among the important signs of cancer. Not rarely the fixation is extreme, and energetic manipulation will fail to alter the position of the stomach.

Aside from lessened mobility *en masse* there may also be a notable loss of flexibility of the wall of the stomach, such that ordinary palpation has little effect on its contour.

Antiperistalsis, i. e., peristalsis in the reverse direction, has been noted in carcinoma by some radiographers.

Accurately speaking, of course, the question of malignancy is for the pathologist to determine with finality. However, the filling defects of carcinoma of the stomach are so characteristic radiologically that these cases can be diagnosed as such in 93 per cent.

With reasonable care and a decent regard for the clinical facts, the Roentgen-ray findings will not only markedly enhance the percentage of correct diagnoses of cancer, but will also often furnish valuable information as to the advisability of operative intervention. For example, extensive involvement of the cardia, or of the media and cardia, renders surgical measures hopeless, while pyloric carcinoma offers a better prospect for surgical intervention, especially if there be no metastasis.

ULCER

The radiologic signs of gastric ulcer may be classified in two groups: (a) those which are cardinal and more or less pathognomonic; (b) those which are merely suggestive.

The cardinal signs are as follows:

1. Visualization of the bismuth-filled crater of a callous ulcer (the *nischen* symptom).
2. The diverticulum of perforating ulcer.
3. The incisura.

Signs which are not determinative but merely suggestive of ulcer include:

1. Acute fish-hook form of the stomach with displacement to the left and down.
2. Delayed opening of the pylorus.
3. Localized pressure-tender point on the lesser curvature.

4. Residue in the stomach after six hours.

5. Lessened mobility.

6. Settling of the bismuth to the lower pole of the stomach, such as is seen in hypotonicity or atony.

A bud-like projection from the contour of the bismuth-filled stomach, corresponding to the crater of a callous ulcer, is a definite and valuable sign. It will usually be on the lesser curvature when found, is rather easily recognized, and is not imitated, at least closely, by any other condition that I know of.

The diverticulum of perforating ulcer is quite as characteristic. The perforation may be anterior into the liver or posterior into the pancreas, and a continuation of the ulcerative process results in an excavation, which when visualized with bismuth shows a rather regular, often spherical, outline. Those that I have seen ranged in size from a filbert to a walnut. A diverticulum sometimes shows as a miniature stomach just outside the stomach's outline with a lower layer of bismuth and a median layer of fluid, capped above by an air bubble. Frequently it will retain bismuth after the stomach is empty. Whether the diverticulum is in the liver or pancreas may commonly be determined. If in the pancreas, rotation of the patient causes a wider excursion on the screen than if it is in the liver. If in the liver, the diverticulum moves with respiration while that in the pancreas does not. As oblique view will also show the more posterior situation of the latter.

Organic hour-glass contraction of the stomach usually, but not invariably, accompanies diverticulum. Commonly the canal joining the two segments is short and near the side of the lesser curvature. Organic hour-glass is differentiated from spasmodic or functional hour-glass by the persistence of the former after energetic palpation, or after the administration of belladonna for two or three days. Both these procedures, however, may fail occasionally to relax a spasmodic hour-glass.

Organic hour-glass stomach may also occur in penetrating ulcer without diverticulum.

The incisura is an indentation of the greater curvature, usually in the vertical portion of the stomach, *pars cardica* or *pars media*, of varying width and depth. Its production is believed to be due to the irritation of the ulcer causing a spastic contraction of the circular muscle fibers in its plane, perhaps in some cases also due to infiltration and stiffening of these fibers.

A true incisura is distinguishable from a peristaltic wave, not only by its depth, which is commonly greater than that of a peristaltic contraction, but also by the fact that it does not move

pylorusward. It persists in spite of vigorous palpation and is not effaced after the administration of belladonna to the patient.

Pressing the lower pole of the stomach upward by palpation will often cause the gas-filled splenic flexure to indent the greater curvature, particularly at the costal arch. This should not be mistaken for an incisura. The latter will show when the stomach hangs naturally.

A slight depression on the greater curvature at the juncture of the cardia and media, the so-called "incisura cardiaca," is seen in most stomachs, and should not be confounded with the pathologic incisura.

Incisurae often have a high situation on the greater curvature. As ulcerous stomachs are frequently hypotonic the bismuth may settle below the level of the incisura and thus fail to visualize it, with the patient standing.

Incisurae are sometimes seen after giving the bismuth water, which disappear on filling the stomach with the bismuth pap. Whether these are merely transient reflex spasms, or whether they are real incisurae which are effaced by the great weight (25 to 30 ounces) of bismuth ingesta, is an unsettled question. To obviate the possible effect of weight, and of bismuth settling below the level of an incisura or spasm, examination in the recumbent posture may be of service.

False incisurae occur not infrequently in which no ulcer or other organic lesion is found. They are probably due to spasm from reflex causes. In appearance they resemble true incisurae, but they often move pylorusward, and usually disappear on palpatory manipulation, or after the administration of an antispasmodic.

These tests are ordinarily decisive, but I have lately seen a case in which a persistent, apparently genuine, incisura was found at operation to be due to a mesenteric band passing over the greater curvature and attaching to the hepatic flexure, thus constricting the stomach. No ulcer was present.

A hypotonic stomach of an acute fish-hook form, with displacement to the left and down, is not uncommonly associated with ulcer, as a result of scar contraction on the lesser curvature drawing the pylorus to the left. The contraction may be extreme, resulting in Haudek's "snail form."

Delayed opening of the pylorus following the administration of bismuth water, apart from actual pyloric obstruction, is almost invariably seen in ulcer of the stomach associated with hyperacidity. This delayed opening is also frequently seen as a reflex from disease of the gall-bladder or appendix.

A residue from the six-hour meal may or may not be found in cases of ulcer. It has occurred in about 70 per cent. of the cases that we have examined so far. The amount varies from a small fraction up to a quarter or more of the meal. In some cases the residue is probably due to spasm of the pylorus, but an invasion of the pylorus by the ulcer may produce actual obstruction. In our cases, six-hour residues were usually found with the perforating types of ulcer, but were rarely seen with callous or simple ulcers.

The presence of a localized pressure-tender point on the lesser curvature is not very trustworthy as an indication of ulcer at that point. Many persons who have no ulcer are sensitive to pressure in the epigastrium. Further, clinicians assure us that unless the parietal peritoneum is involved (as in penetrating ulcer, for example) visceral lesions are not particularly painful to pressure. However, such a tender point, if definitely localized, is entitled to consideration in the final summing up.

A hypotonic condition of the stomach, with settling of the bismuth to the lower pole, while by no means constant in ulcer, is found sufficiently often to warrant its inclusion among the suggestive signs.

Notwithstanding the numerous cardinal and suggestive radiologic signs of ulcer, there is a small percentage of cases in which these signs are either absent or too indefinite to support a diagnosis. This is especially true of non-perforating ulcers in the pars pylorica, and on the anterior and posterior walls, and the shallow or superficial ulcers which are of relatively frequent occurrence.

From what has been said it may be gathered that at present none of the Roentgen-ray signs of cancer or ulcer is pathognomonic. The relative value of those signs, singly or in groups, can be learned only by experience. Nor should the diagnosis rest on them alone. The Roentgen ray simply furnishes valuable contributory evidence as to the presence and nature of gastric lesions—so valuable that whenever available it should be routinely employed—but the final judgment should take into account all the evidence of every sort.

Hence, the radiologist should be not only a radiographer but a clinician to the utmost of his ability, study his cases from the clinical side, follow them to the operating-table, and take his rightful share of responsibility.

The radiology of gastric lesions is still young, and with enthusiasm in the work and conservatism in adjudging the results, it will take still higher rank among diagnostic measures.

Fig. 1, Case No. 90,713; X-ray No. 24,338. Male, aged 67 years. X-ray findings: Rather large stomach with active peristalsis. Slight irregularity at pyloric end, which is slightly obstructed. Operative findings: early carcinoma; irregular, indurated growth on posterior wall, extending to pyloric ring, 5x2x2½ cm.

Fig. 1A. Residue after 6 hours.

Fig. 1B. Case No. 90,713; X-ray No. 24,338. Pyloric end of stomach laid open showing early carcinoma just within pyloric ring. See skiagrams, Figs. 1 and 1A.

Fig. 2. Case No. 83,494; X-ray No. 21,020. Male, aged 30. Marked filling defect greater curvature, pars media. No residue. Gaping pylorus. Exploration: Carcinoma of the stomach.



Figure 1.



Figure 1A.



Figure 1B.



Figure 2.

Fig. 3. X-ray No. 20,801. Male, aged 41. Filling defect on lesser curvature. No residue after 6 hours. Pylorus gaping. Operation: Carcinoma of stomach.

Fig. 4. X-Ray No. 22,875. Male, aged 34. Filling defect especially in the pars media and cardiaca. No residue. Pylorus gaping. Exploration: Inoperable carcinoma of stomach.

Fig. 5. X-ray No. 24,021. Female, aged 56. Filling defect and irregularity especially of the pars media extending well up in cardia. No residue. Exploration: Inoperable carcinoma.

Fig. 6. Case No. AS3,115; X-ray No. 20,799. Female, aged 62. Radiogram shows fish-hook stomach with a moderately large projection on the lesser curvature. Small residue after 6 hours. Operation: Resection one-half middle of stomach; end-to-end union. Pathologic report: Carcinomatous ulcer with glandular involvement.

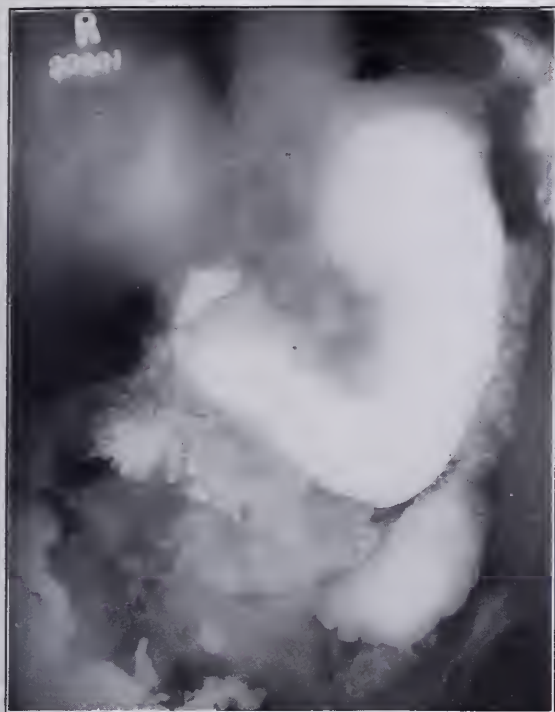


Figure 3.

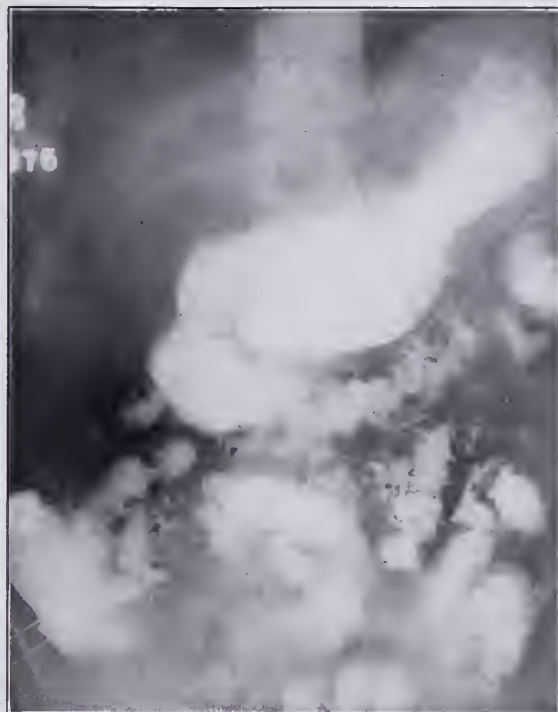


Figure 4.



Figure 5.



Figure 6.

Fig. 7. X-ray No. 22,288. Male, aged 57. Stomach markedly contracted, showing filling defects in its lower third. Marked involvement of the posterior wall obstructing the cardia. Note bismuth in esophagus. Exploration: Extensive carcinoma of the stomach.

Fig. 8. Case No. 90,280; X-ray No. 24,130. Female, aged 52. Radiogram shows filling defect or irregularity of the pars media and pylorica. No residue after 6 hours. Operation: Carcinoma; three-fifths of the stomach resected.

Fig. 9. Case No. 84,287; X-ray No. 21,415. Male, aged 43. Radiogram shows filling defect at pyloric end. No residue after 6 hours. Operation: Carcinoma of the stomach.

Fig. 10. Case No. 83,026. Male, aged 70. Pyloric end of stomach fixed and obliterated. Large residue after 6 hours. Operation: Carcinoma.



Figure 7.



Figure 8.



Figure 9.

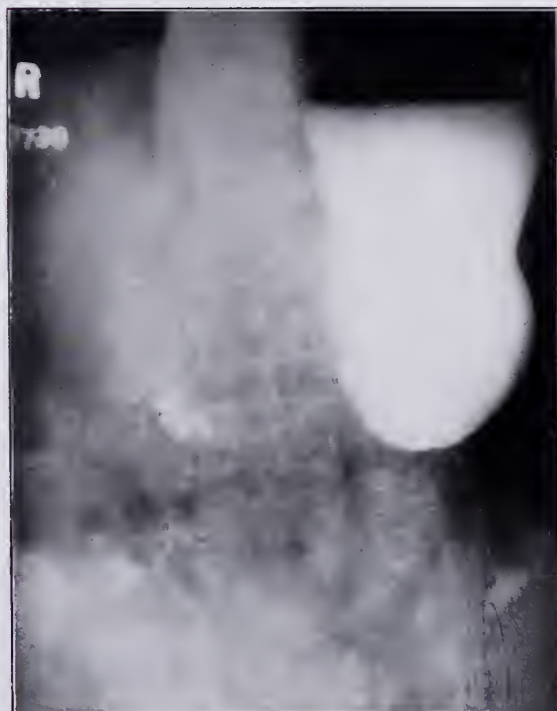


Figure 10.

Fig. 11. Case No. 90,500; X-ray No. 24,236. Male, aged 61. Radiogram shows filling defect in pars pylorica. Residue after 6 hours. Operation: Carcinoma; three-fifths of stomach resected.

Fig. 11A. Residue after 6 hours.

Fig. 12. Case No. 84,005; X-ray No. 21,276. Male, aged 36. Marked cutting off pyloric end of stomach with irregularity. Marked residue after 6 hours. Operation: Freely movable tumor size of small hen's egg at pylorus, causing almost complete obstruction. Another tumor on lesser curvature. Anterior gastro-enterostomy. Either carcinoma or syphilis. Wassermann positive. Pathologic report: Tissue removed inflammatory.

Fig. 13. Case No. 83,327; X-ray No. 20,934. Male, aged 55. Filling defect or irregularity of the pars pylorica. Residue after 6 hours. Exploration: Carcinoma of the stomach.



Figure 11.



Figure 11A.



Figure 12.



Figure 13.

Fig. 14. Case No. 90,102; X-ray No. 24,023. Female, aged 52. Filling defect pars pylorica. No residue. Diagnosis: Ulcer or carcinoma. At operation: Gross ulcer with perforation lesser curvature just above pylorus.

Fig. 15. Case No. 86,058; X-ray No. 22,280. Male, aged 40. Filling defect pars media and pylorica. No residue after 6 hours. Pylorus gaping. Exploration: Carcinoma of the stomach.

Fig. 16. Case No. 86,914; X-ray No. 22,649. Male, aged 61. Filling defect pars media and pylorica with contraction. Residue after 6 hours. Exploration: Extensive carcinoma of the stomach.

Fig. 17. Stomach removed post mortem, filled with bismuth and radiographed. Note thickness of walls and narrowing of lumen due to the invasion of a colloid carcinoma. It gives a radiogram such as is shown in Fig. 16.



Figure 14.



Figure 15.



Figure 16.



Figure 17.

Fig. 18. Case No. 80,973; X-ray No. 19,835. Female, aged 44. Radiogram shows a fish-hook stomach. No residue after 6 hours. It shows a small projection on the lesser curvature, which is the bismuth filled crater of a callous ulcer and a marked transverse contraction of the greater curvature (incisura) opposite this niche. Operation: Excision of ulcer on lesser curvature about 5 inches from pylorus with surrounding fibrous tissue; gastroduodenostomy. Pathologic report: Gastric ulcer, scar tissue.

Fig. 19. X-ray No. 24,376. Female, aged 49. Note marked indentation of greater curvature with a projecting niche on lesser curvature. Residue after 6 hours. Operation: Ulcer of the stomach.

Fig. 20. Case No. A77,396; X-ray No. 18,393. Hour-glass stomach, fish-hook type, displaced to the left, extending below umbilicus, showing diverticulum just outside stomach outline on lesser curvature. Diverticulum contained bismuth after the upper loculus had emptied. Diagnosis: Diverticulum due to perforating ulcer of the stomach. Operation: Perforating ulcer of stomach, perforating into the liver.

Fig. 21. Case No. A30,520; X-ray No. 18,993. Female, aged 34. Screen showed fish-hook stomach with a transverse contraction (incisura) on the greater curvature which persisted under palpation. Owing to rapid settling of the bismuth below the level of the incisura plates were made with the patient prone in order to show the incisura well. To eliminate the possibility of spasm atropin was administered for two days. Re-examination shows the incisura still present. Diagnosis: Ulcer of the lesser curvature. Operation: Excision of ulcer, size of a quarter, high up on lesser curvature, adherent to pancreas. Pathologic report: Simple ulcer.



Figure 18.



Figure 19.



Figure 20.



Figure 21.

Fig. 22. Case No. 87,713. Male, aged 30. Irregular filling defect pars media. Marked bulging lesser curvature. Residue after 6 hours. Active peristalsis. Duodenum contains bismuth. Operation: Ulcer of the duodenum. Thick callous perforating ulcer lesser curvature, perforating into pancreas; many adhesions.

Fig. 23. Case No. A78,465; X-ray No. 18,813. Male, aged 52. Radlogram shows small projecting mass on lesser curvature with slight contraction opposite on greater curvature which was seen moving toward pylorus. Operation: Ulcer 4 inches above pylorus on lesser curvature, most extensive on anterior wall, with a callus the size of a silver dollar, actual crater the size of a nickel. Resection in continuity.

Fig. 24. Case No. 88,239; X-ray No. 23,248. Female, aged 53. Incisura in pars media, greater curvature. No residue. Diagnosis: Ulcer of the stomach (the diagnosis being based on the incisura which persisted after the administration of belladonna). Operation: Appendectomy. Division of Lane's kink. Incisura due to an adhesion band which extended from the jejunum to the hepatic flexure.

Fig. 25. Case No. 81,588; X-ray No. 20,112. Male, aged 41. Filling defect lesser curvature, pyloric end. Diagnosis: Former gastro-enterostomy functioning; filling defect due probably to carcinoma. Confirmed at operation.



Figure 22.



Figure 23.



Figure 24.



Figure 25.



Fig. 26. X-ray No. 23,008. Male, aged 42. Hour-glass stomach with projecting mass on lesser curvature in pars media. Small residue in projecting mass and large residue in lower loculus after 6 hours. Operation: Perforating ulcer.



Fig. 27. X-ray No. 24,631. Penetrating ulcer with diverticulum. Hour-glass stomach.

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EDITORIALS

THE WORK OF A GREAT NEWSPAPER

The present crusade against quackery inaugurated by and lately published in the *Chicago Tribune* are evidences of a commendable spirit which should appeal to the medical profession of the entire nation. Apparently single handed, the *Tribune*, a daily lay publication, has entered into a thorough going investigation of and campaign against one of the rottenest forms of abuse in medical practice now extant.

For quite some time the *Tribune* has refused to publish advertisements of all quacks and medical charlatans and doubtless will continue this clean-up campaign until the abuse is eliminated. Unfortunately, below the details of the exposé on quackery in one of the recent editions of the paper there appeared the advertisement for hyomei, a supposed cure for catarrh. The context of this advertisement is along the same lines as those pursued by the very quacks whom they are attacking, as is evidenced by such sentences as "If you do not kill the loathsome germs of catarrh, their desperate assaults will in time undermine your reason, rob your brain of its brilliancy and activity, and leave you not only a physical, but a mental wreck," etc. Of course, the remedy is guaranteed, which guarantee amounts to the usual one accompanying an advertisement of any patent medicine. However, this advertisement does not detract from the real worth of the campaign under way and we have every confidence that at the expiration of its contract with the manufacturers of hyomei, the *Tribune* will eliminate this disagreeable splotch.

The basis for the investigation was the data obtained by the *Tribune* from sending several of its reporters, whose health was beyond question—and in several instances physical examinations of these men were made by reputable physicians with a resulting clean bill of health—to the various quack institutes and offices under the guise of prospective patients. Fortunately these

young men possessed the right amount of physical and mental stamina to withstand the ridiculous charges made against their health by these human vultures. In almost every instance they were told that being on the verge of physical and mental decline, it was well that they had appeared at the time they did; a cure was, of course, guaranteed, but naturally about the first thing inquired into was the prospective victim's bank account. Indeed, in the case of one of the patients of a certain so-called specialist the pocket was actually entered and relieved of a \$20 gold coin.

The result of the exposé was that on the day following the first publication of some of its data the *Tribune* was rewarded by the action of the city council of Chicago in citing its corporation counsel into an investigation concerning medical charlatanism as it exists in Chicago, and within the next two or three days both the governor of the state and the United States postal authorities began activities toward a general clean-up. Because of the weight of evidence against them, two of the most noted crooks in this business have decamped to other fields, one to Toronto and another to Montreal, Canada, the one on the eve of the issue of an indictment for murder against him. The methods and results of this nefarious business are almost beyond belief and it is probable that these men are responsible directly or indirectly, each and every one, for the loss of more than a single life. Indeed, in one of the recent issues of the *Tribune*, there are recorded four suicides as the direct result of the fears instituted in the minds of susceptible patients by these conscienceless men. The whole purpose of their business is admittedly to "get the money."

Already a few medical societies throughout the country have passed resolutions endorsing this campaign, among the first being the Fort Wayne and the Twelfth District Medical societies.

Not only the medical profession, but, in a far larger degree, the public owes a debt of gratitude to the *Tribune* for its untiring energy in its investigation and pursuit of the base practices of these men, and its editor and those in charge of the investigation are worthy of a place beside Editor Bok, of the *Ladies' Home Journal*, and *Collier's Weekly*, that not long since so relentlessly pursued the patent medicine and quack industries. Just one step further and the *Tribune* could complete this commendable investigation, and that is by carrying it into the ranks of the so-called ethical practitioners of medicine and exposing to the public in its power-

ful way the wrongs of fee-splitting which are now so rampant and against which THE JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION has been making a vigorous fight.

THE CLINICAL PICTURE OF COLON-BACILLUS SEPSIS

So far our text-book literature on the picture of sepsis caused by the colon bacillus is decidedly meager, but during the past few years a large amount of literature concerning the colon bacillus and its pathogenic properties has been published in various journals. A recent editorial in the *Medical Record*¹ presents a very excellent resumé of the subject. In this the ubiquity of the colon bacillus, its variability and virulence, and its multiple pathologic rôle are recorded as facts already firmly established in modern clinical medicine. On the other hand its various grades of virulence, the laws governing the same, the differentiation of its numerous strains, and the clinical picture accompanying the local and general infections produced by it, are problems still awaiting solution.

Concerning localized infections by this organism, it has been established that the germ being a natural and peaceful inhabitant of the human intestine, may in the event of intestinal inflammation or ulcerative processes penetrate its wall and take on most pronounced pathogenic properties. This is spoken of as endogenous infection. Though cetogenous infection is less common than the endogenous form, yet it may occur, as is instanced by the numerous water-borne infections of colon bacillosis and infections from putrid meat and other foods. The three main avenues for the endogenous infection are the intestinal wall, the biliary passages and the urinary tract. Colon-bacillus infection is not at all uncommon in peritonitis, cholecystitis, liver abscess, pyelitis, empyema and meningitis; the organism being present either alone or in combination with other micro-organisms.

As to generalized infection by the colon bacillus less has been written, probably largely because blood-cultures are negative for the detection of this organism. However, the author declares the clinical picture of colisepsis is one that may be sharply defined and readily recognized, the most important symptom being high fever accompanied by severe rigors. The temperature curve is usually marked by sharp intermissions and the rate of the pulse corresponds to the height of the temperature, so that occasion-

ally a typhoidal bradycardia may be simulated. Such local foci of inflammation or suppuration may be detected as endocarditis, bronchopneumonia, empyema or suppurative meningitis. There is a variability of the nervous symptoms, from a typhoid apathy to a marked delirium. The leukocyte count varies from six to fourteen thousand. The rapid destruction of the colon bacilli in the blood accounts for the frequent negative blood-cultures, but Fejes has frequently gotten positive results by removing the specimen of the blood from the median basilic vein just after the rise of temperature following a chill. Animal inoculation often succeeds when cultural examination fails.

It is of extreme importance to determine the portal of entry of the organism into the general circulation. Lesions of some part of the alimentary canal may afford the path of entrance, and Fejes observed two cases of colisepsis following a simple angina, in one of which there developed a cholangitis with hepatic enlargement accompanied by chills and wide ranges of temperature, with a subsequent right-sided purulent pleurisy from which the colon bacillus was isolated. The organism is said to be one of the most frequent causes of peritonitis. Since the enterogenous forms may closely simulate typhoid fever, differential points are important, one of which, emphasized by Schottmüller, is the absence of a roseola in the former. Typhoidal intestinal lesions provide an access of the colon bacillus into the general circulation, resulting in mixed pictures of typhoid and colisepsis. Various forms of diarrhea, dysentery and Asiatic cholera may be likewise complicated, and such complication in cholera led Emmerich to mistake this organism for the specific cause of cholera and to name it the *Bacillus neapolitanus*.

So commonly does the colon bacillus reach the general circulation through the biliary passages that Naunyn attributes most cases of cholangitis to an infection with this micro-organism. Colon-bacillus infection in both acute ascending and acute hematogenous infections of the kidney is well known, as is its position in the production of so-called "catheter fever." Puerperal colisepsis is not an uncommon occurrence.

It is estimated that from twelve to fifteen billions of colon bacilli are daily excreted by the bowel, in view of which fact it seems remarkable that the average individual is not more frequently attacked either by local or general infection by this organism. Probably there are many features concerning the natural history

1. Oct. 18, 1913.

of the organism, the immunity of the human organism thereto, and the various factors concerned in its destruction by the vital forces, which as yet are unknown, but which will doubtless be solved during the present trend of biologic research. As a matter of fact there is probably no organism with which the human economy is so constantly battling as the colon bacillus, and a more exact knowledge of its clinical picture will be a material aid in clinical medicine.

FRAUDULENT RADIO-ACTIVE WATERS

Of late we have heard a great deal about the radio-active properties of certain mineral springs, and to protect the public from fraud the government has seen fit to issue, through the Bureau of Chemistry, a warning in regard to the so-called radio-active mineral waters.

The government circular, which recently has been sent out, is as follows:

There are indications of the beginning of an attempt to perpetrate a great fraud on the American people through advertising certain mineral waters as possessing radio-activity. These waters, in some cases, are taken from springs the waters of which as they come from the ground do possess certain radio-active properties. Examination of many of these waters by the department's specialists indicate that whatever radio-activity they possess at the spring is due almost entirely to radium emanation rather than to the presence in the water of any substance possessing radio-activity. These emanations in the form of gas quickly disappear from the water and as a result, after the water has been bottled a short time, it will possess practically no radio-activity. The belief long held by many people that some mineral waters used at the springs are more effective than when bottled has been explained by some authorities on the ground that the beneficial effect of these waters is due to radio-activity. As the radio-activity disappears soon after the water is taken from the spring, any effect due to the radio-activity must be lost in a short time. If the radio-activity of a water in a spring is 100, four days after bottling it will be only 50 and twelve days after bottling 10. In a month it will be practically nothing compared with the original radio-activity of the water at the spring. The public, therefore, is warned to regard with suspicion any water advertised as possessing radio-activity. As far as the government's specialists have been able to ascertain, no bottled water, no matter how radio-active it may have been at the spring, retains this radio-activity for any length of time.

The department is now investigating a number of the so-called radio-active waters with the object of securing evidence that can be made a basis of prosecution for misbranding. In the past, before the Food and Drugs Act was enacted, a number of mineral waters made claim to curative properties which they did not possess, and succeeded in creating a misplaced confidence on the part of the consumers. This was particularly true of a number of imported waters which were sold extensively in the United States with a statement on the bottle that they were wonderful or magical cures for all sorts of incurable or chronic ailments. The Treasury Department, acting in cooperation with the Department of Agriculture, now refuses admission to the country of foreign waters labeled so as to mislead consumers as to their real or curative properties. The department fears that unless the public is warned that the fraudulent trade in so-called radio-active waters will develop, just as the fraudulent trade in other mineral waters was developed, to the point where people with strong imaginations will supply their bottlers with all sorts of testimonials asserting that these supposed radio-active waters have effected wonderful cures.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

Now is the time to pay your dues for 1914.

PRESIDENT SALB will announce his committee appointments in the January number of *THE JOURNAL*.

It may not be amiss to remind our readers that the time has come for the payment of the annual dues to the Indiana State Medical Association. It means a good deal to become delinquent in the payment of dues, as some physicians can testify. The medical defense feature of the association is inoperative during any period of delinquency in the payment of dues on the part of any member of the association.

CONCERNING the high cost of living and the inability of some people to get ahead, an exchange says: "One great trouble with this country is that so many of our promising young men who ought to be purchasing good, substantial overalls at 69 cents are going down to the tailors and ordering two-piece blue serge suits at \$25."

There is certainly some truth in this, for the average young man of this day and age is enjoying an extravagance which his means do not permit.

PRESS reports indicate that the institutions exploiting the Friedmann tuberculosis serum will bring libel suits against one or more of the prominent medical journals of this country. It will be noted that no attack is made on the United States government for the unfavorable report rendered from that source. It looks as though an effort was being made to get a little free advertising, and incidentally incur the sympathy of a few misguided individuals who may think that Friedmann and his representatives are being persecuted.

THE Stokes Sanatorium of Louisville, Ky., says in a circular sent to doctors: "A consultation fee of \$20 will be sent to you for the history of each case you refer to us." This information ought to be given to every patient who goes to the Stokes Sanatorium, but we believe that when the general public gets hold of the fact that patients are held up for a graft which is absolutely uncalled for, the patronage of the Stokes Sanatorium will take a decided slump. However, Kentucky will eventually follow the lead of some other states in having a law which will prohibit the kind of graft which is offered by the Stokes Sanatorium.

ONE of our county medical society secretaries says that the only time that any considerable number of medical men in his county get together is when some one gives a dinner to the doctors, and then they turn out in full force, providing it costs nothing. He makes further assertion that three-fourths of the doctors in the county are, figuratively, breaking their necks in a chase for patients that may be coaxed or dragged to some fee-splitting surgeon who will operate and then divide the "swag." If these reports are true, then the people of the particular county in question would be better off if they had no doctors of any kind whatsoever.

THE indiscriminate use of the finger bowl in hotels and dining cars has been considered unsanitary, unnecessary and not in demand by the general public. The Northwestern Hotel Men's Association has passed a resolution in which the hotels belonging to the association are asked to abandon the use of the finger bowl and to print on their menu cards the following: "Finger bowls

served on request." The New York Central and the Pacific Railway lines have already taken the initiative in serving finger bowls "only on request." This is a step in the right direction and in line with the general movement for better sanitary conditions with a view to conserving public health.

ALKALOL is the name of a new proprietary remedy of unknown composition and unknown merit which is being exploited in Indiana. Like many other proprietaries, this preparation is recommended in extravagant terms in the treatment of a very large number of conditions, and the most misleading statements are made concerning its efficacy. Our readers will do well to steer clear of this preparation until such time as the manufacturers see fit to tell us what the preparation contains, and the Council on Pharmacy and Chemistry of the A. M. A. determines that the truth is being told. Even then, recommendation should be withheld from a preparation which is so blatantly and extravagantly advertised for the relief or cure of such a large number and such a varied assortment of diseases.

FEE-SPLITTING is beginning to receive attention in the daily papers throughout the state, and we have recently received several papers in which interviews with some of the prominent physicians of Indianapolis are printed. A few of the expressions are credited as follows: "Fee-splitting is fundamentally dishonest" (W. N. Wishard). "Fee-splitting is a great evil. It encourages incompetency on the part of physicians and surgeons, and enables the incompetent to secure business at the expense of the unsuspecting patient. . . . Fee-splitters will operate on little or no provocation. It is a blot on the profession. We must pass a state law to prohibit it" (J. H. Oliver). "Fee-splitting is a first cousin to manslaughter. The hapless patient is sacrificed to the doctor's pecuniary interest" (Chas. P. Emerson). "There is no argument for fee-dividing in any form. Publicity in a state law will help" (E. D. Clark).

DR. J. F. SPAUNHURST, Indianapolis, the osteopathic member of the Board of Medical Registration and Examination, has adopted what he probably thinks is an enterprising plan for profit, in establishing offices under his name in various cities and towns of Indiana and placing osteopathic students in charge. It is reported that Spaunhurst takes a percentage of the income

from these offices for the use of his name, and the osteopathic physicians who are operating under him are relieved of the necessity of securing a state license. Perhaps in due time we will have a chain of the Spaulhurst offices from one end of the state to the other, much as we now have a chain of the famous Woolworth 10-cent stores. Meanwhile, our medical law is held up by some as a model for other states to copy, and our governor is commended for his appointments on the State Board of Medical Registration and Examination.

THE recent donation of \$1,500,000 to the Johns Hopkins Medical School, and \$4,000,000 to the Medical Department of Cornell University, bids fair to promote great strides in medical advancement, for the thing that has been needed in this country has been funds to pay expenses and to rid investigators of the necessity of engaging in actual medical practice in order to meet living expenses. The gifts that have been made to Johns Hopkins and Cornell will make it possible for a certain number of men to devote their entire time to teaching and to research work. The establishment of the Rockefeller Institute in New York for the sole purpose of conducting medical experiments along scientific lines was the first important step toward removing the reproach against the profession in this country. Its existence has been amply justified by the discoveries made in connection with various diseases. With these new gifts to Johns Hopkins and Cornell, the United States is in a fair way to lead the world in advancing medical science.

IN this number of THE JOURNAL we present the statement by the Board of Regents of the American College of Surgeons, concerning the aims and objects of the college. The statement is made that the American College of Surgeons is simply the expression of an attempt to bring about the setting of a standard for surgery in this country, and to work for a gradual raising of this standard. The intent is to establish the standard to begin with by recognizing those men now in practice whose training, experience and character entitle them to be considered specialists in surgery or in the strictly surgical specialties. This choice must be independent of affiliation with different schools of practice or with whatever institutions or groups of men—a choice based on individual fitness alone.

In concluding the statement, the Board of Regents says that the college has taken up one evil so rampant in certain states as to threaten

the standing of the profession as a whole, both practitioners and specialists, i. e., that form of commercialism known as fee-splitting. The college will not knowingly select, *or retain within its ranks*, anyone who practices fee-splitting either directly or by subterfuge.

WE especially urge our readers to patronize THE JOURNAL advertisers. It can be said truthfully that physicians, as a class, are more often humbugged and imposed on than any other class of people. Makers of spurious pharmaceutical preparations, surgical instruments and appliances are constantly exploiting the medical profession for unwarranted profit, and every medical man can protect himself if he will take the trouble to make a little investigation before he extends patronage. Not all of the good, responsible firms catering to the wants of physicians advertise in THE JOURNAL, but we can assure our readers that the firms that do advertise in THE JOURNAL are in every respect worthy of confidence and patronage. Aside from this it is taken for granted that every reader desires to see THE JOURNAL made larger and better, or at least the present standard maintained. This can be accomplished by patronizing THE JOURNAL's advertisers, for the advertising depends on patronage, and it is the advertisers who make it possible for us to furnish our readers with such a periodical as they now have placed before them. Another thing that is of importance is the matter of saying to the advertisers that they are patronized because they in turn patronize THE JOURNAL.

THE Hord Sanitarium of Shelbyville, with an unsavory reputation for commercialism, has frequently written members of the medical profession soliciting cases and offering to pay a commission of \$25 for each and every case referred. Evidently the bait did not prove quite as attractive as the proprietors of the Hord Sanitarium thought it would be, and they are now mailing out bank checks for \$25, less the signature of the maker of the check, accompanied by the statement that the signature will be added when the physician to whom the check is made payable brings or sends a patient. The physician who has any sense of honor in his make-up and who is possessed of the requisite amount of good rich blood in his system will consider such an offer an insult. If the Hord Sanitarium is deserving of the respect and approval of medical men, and we do not admit that it is, it would not be necessary to offer any commission, rebates or fees

to physicians for referring patients, and, on the other hand, any reputable physician who feels disposed to recommend a "jag" cure or patronize a "jag" cure institution will collect his fees from the patient and not expect a rake-off from the institution where the patient is sent. No self-respecting medical man can afford to be mixed up with any such deal as that proposed by the Hord Sanitarium.

It is surprising how often the names of some of our prominent medical men appear in the public press in connection with reputed new discoveries or in connection with a bona fide interview concerning medical subjects. Some names appear so regularly in print that we are almost constrained to believe that a studied effort is made to keep these names before the public through interviews or carefully prepared articles that are made available to the associated press at stated intervals. It is not necessary to mention any names, for the medical profession is well acquainted with those erstwhile leaders who ethically (?) exploit themselves at every available opportunity, and who, if opportunity does not offer, succeed in creating an opportunity. It is a source of gratification and comfort to us to know that the real leaders, the men who are giants in the medical profession and do things themselves without stealing from others and putting forth for their own that to which they have no just title, are above the practice of self-exploitation through the newspapers, and it is not a difficult matter for such men to keep their names out of the daily papers. But the point of this comment is, why do we not punish or reprimand the prominent members of the medical profession for breaches of ethics or professional propriety, when for similar offense the lesser lights in the medical profession are severely punished?

As a concrete evidence of the inefficiency of our medical law and the absurdity of any one making an effort to comply with the provisions of the Medical Practice Act, we call the attention of our readers to the case of Dr. Alvin Farnsworth, who for two years has practiced osteopathy in Shelbyville without going through the formality of being licensed by the State Board of Medical Registration and Examination. He was prosecuted for practicing medicine without a license, and his defense was that he has been practicing under the supervision of Dr. J. H. Spaunhurst, residing in a distant city, and a member of the State Board of Medical Registration and

Examination. The case has been dismissed in the circuit court and the defendant discharged. We see no reason why any doctor may not drop down into Indiana, and, if charged with practicing medicine without a license, he can put forth the claim that he is practicing under the supervision of some other physician willing to substantiate the claim, and the bluff should work.

The wonder to us is that Osteopath Dr. A. W. Tindall of Hartford City, who recently has been found guilty of practicing medicine without a license, did not fix up some kind of a deal with Dr. Spaunhurst or someone else, whereby he could put forth the claim that he was practicing under the supervision of another physician. Evidently Dr. Tindall is not wise to the game, but as he has appealed the case, he may discover new evidence which will result in his being acquitted by the higher court.

CINCINNATI deserves great credit for having established a municipal university devoted to the advancement of liberal and technical learning, and the service of the city and people of Cincinnati. The University of Cincinnati is the only fully organized municipal university in the country. It comprises the following departments: college of liberal arts, college for teachers, graduate school, college of engineering, college of medicine, college of commerce, astronomical observatory and library.

The college of medicine has a faculty of twenty-nine professors, nine associate professors, sixteen assistant professors and sixty-two instructors. The course of study covers four years, and the last two years' work is chiefly given in the amphitheaters and wards of the hospital. The institution has been graded A+ by the Council of the American Medical Association.

Aside from the fact that Cincinnati should be proud of its university, it should also be proud of its new General Hospital, which is said to be the most complete hospital in this country. The hospital occupies twenty-seven acres and cost over \$4,000,000. It includes every convenience known at the present time for teaching and research work, and this, in connection with the medical college, it is thought is destined to make Cincinnati the greatest medical teaching center in the West.

The fact that the University of Cincinnati, with all of its various departments, and the General Hospital are entirely municipal enterprises speaks volumes for the liberality and progressiveness of the people of Cincinnati.

IN an address delivered before the Pacific Logging Congress at Spokane, Sept. 26, 1913, and reproduced in whole or part in the many publications representing the timber and lumber industry of this country, Dr. J. C. O'Day of Portland, Ore., formerly of Indiana, pays a tribute to surgery and condemns the pretender and fee-splitter in the following language:

Surgery, the highest art of scientific medicine, has accomplished much. To-day, surgery has mastered a disease that heretofore has been accompanied with a gruesome mortality of 100 per cent. I refer to cancer of the stomach. The surgeon's knife has conquered not only this disease but many others—gall-stones, kidney stones, obstruction of the bowels, appendicitis, abscess of the brain, the lung—even to the transplantation of various tissues. All have been successfully dealt with by skilled surgery. Nothing in all the civilized world has ever accomplished what surgery has toward the relief of suffering and the prevention of untimely death, but while this is true, and while we point with reasonable pride to these achievements, we are not unmindful of the fact that surgery, too, has its grief. All who are graduates of medicine are not scientifically interested. To the profession clings a vast number of pretenders.

Surgery of to-day is prostituted by this class. All over the country there is an alarming amount of unnecessary operating, and the laity must be taught that there is a vast difference between this kind of operating and surgery. In this country there is an army of pretenders that are extorting money from credulous people by the performance of these needless operations, and coupled with this is the system of commissions paid by many who pose as surgeons, and by this system the unscrupulous doctors are advising operations for everything and anything because of the good markets for their wares.

In behalf of the honest and earnest profession which is struggling to free itself from this condition, I plead your assistance. The doctor who will sell his patient to a needless operation is no credit to himself or the profession. Besides, he is a dangerous man to his community. The doctor who demands a part of the surgeon's fee in case of a necessary operation will be governed by the size of the rebate more than the surgeon's ability. In this fight the public must aid us.

OUR attention has been called to what seems to be a blackmailing scheme worked on unsuspecting physicians. We have in our possession three letters, exactly alike as to composition, handwriting and substance, with each signed by a different name and mailed from a different Indi-

ana town. The letter, less names and signatures, is as follows:

.....1913.
Dr.....
....., Indiana.

Dear Doctor:

You will no doubt be surprised to get this letter from a stranger, but oh, I am in such awful trouble that I must get help soon or I will go crazy.

I am in a family way, nearly two months gone, unmarried and deserted. That tells the whole miserable story in a few words.

I must get free at any cost, as I would much rather die than have it become known.

Won't you help me or tell me of someone you think would? If you will I will pay you well for it and be forever grateful to you for saving me from worse than death. Please do not be angry with me for asking your aid. I could not bring myself to go to one I know, and I heard a lady from here say you were a good doctor. I feel sure that if you know all the circumstances and how much this means to me you would not condemn me.

I can make an excuse to get away for a short time and if you can assist me in any way please let me know at once how much it will cost me and how soon I can act.

Kindly use plain envelope.

Sincerely yours,

Miss.....
.....

We are informed that if the letter is answered, a young girl soon puts in an appearance, and no matter what attention is given her, her visit is followed some weeks later by the visit of a man who claims to be a relative of the girl, and who makes the statement that the girl has lost her life through the effects of an abortion, and that on her person was found the doctor's letter, professional card, etc. It is then made to appear that things look bad for the doctor, and that suit will be brought unless the matter can be settled out of court. Whether the doctor is guilty or not, he sometimes is weak enough to yield to the temptation to avoid notoriety, and pays the price that is asked for silence. The fact that several Indiana physicians have received the letter which we herewith reproduce, all of the letters being in the same hand-writing, but sent from different towns and with different signatures, lends color to the supposition that a well-devised scheme of blackmailing is on foot, and members of the medical profession should be on their guard.

IN the discussion of a paper on the "Importance of the Tuberculin Reaction in the Diagnosis of Early Pulmonary Tuberculosis," presented at the Minneapolis meeting of the American Medical Association, some facts were brought out which deserve repetition and emphasis. For instance, Dr. Richard C. Cabot of Bos-

ton says that the experience of a large number of observers in different countries indicates that the ophthalmic reaction as a test for tuberculosis is dangerous and should not be used. It is a delicate test, but the possibility of the loss of the eyesight from its use justifies us in abandoning it as a test. In a young child the von Pirquet test is important evidence, but it is really of little value in adults, as so many adults react because of the presence of latent tuberculosis, which has no practical importance to those persons. After the second year the test is valueless, except as a negative test. Subcutaneous injections of tuberculin are of value when they bring out focal reactions at the seat of the disease. For example, they may be of value in showing the nature of the infection in the eye, knee-joint or lymph-nodes. But tuberculin reactions should be studied as to variations, inasmuch as the reaction differs as to character, intensity and time of appearance. Generally speaking, those who are affected with active tuberculosis react more promptly and reach a maximum effect earlier than those suffering from latent or quiescent tuberculosis, and an old fibroid tuberculosis without apparent symptoms would probably reach its maximum extremely late. The Roentgen ray gives important evidence in showing calcified nodules in a tuberculous lung, though the practical value depends entirely on the one who is making the diagnosis. Dr. Cabot emphasizes the point that the Roentgenogram shows shadows, and nothing but shadows. It never shows pathologic processes. It is for us to interpret what these shadows mean. If the competent clinician can check his physical examination with a competent roentgenologist's work, it is ideal. It is the height of absurdity to make a diagnosis of tuberculosis based simply on the fact that there is a reaction to the von Pirquet test and shadows thrown by the Roentgen rays. The safest clinician is the one who takes into consideration the history, the thorough physical examination, and then substantiates his findings, if necessary, with the subcutaneous tuberculin test and roentgenoscopy. It is of the utmost importance that we diagnose between active tuberculosis and tuberculosis which is inactive.

THE Council on Pharmacy and Chemistry of the American Medical Association deserves great credit for taking the initiative in bringing about reforms that were greatly needed, but is it not possible that undue zeal or even error may lead

to the adoption of rules and the promulgation of opinions that are not exactly fair to all concerned nor in line with a spirit of reason? In other words, is it not possible that there is danger of being destructive rather than constructive unless the Council guards against overacting the part of censor? We are not disposed to criticize the Council for the intent which apparently governs its actions, for we all must admit that the basic principle underlying the work of the Council is correct, and there has been a veritable house-cleaning among manufacturing pharmacists and chemists since the Council has begun its work and made public its findings; but we believe that there is such a thing as adopting arbitrary and unreasonable standards and in pursuing such an uncharitable attitude as to antagonize the very interests we are presumed to encourage in their efforts to help us as well as themselves. There is such a thing as trying to stand so straight that we tumble over backward.

We believe that the Council has demonstrated beyond a question of doubt that many manufacturing pharmacists have been dishonest in intent and practice, and that they have exploited the medical profession and the public for commercial gain, but we do not believe for one minute that all manufacturing pharmacists are dishonest in intent or practice, and we are willing to believe that a few of these houses have been sincere in their declarations to deal fairly and honestly at all times with the problems arising in connection with their business relations, and that they are equally sincere in their willing or unwilling acceptance of the Council's aid in an endeavor to improve their standards. That they may honestly err is conceded, but it is likewise true that the Council may err, and in this work of readjustment of conditions and the establishment of new standards, a spirit of mutual cooperation should prevail.

It is known that the manufacturers, almost without exception, did not take kindly to the act of the American Medical Association in establishing a Council on Pharmacy and Chemistry, and some even branded the enterprise as an act of presumption and arrogance that deserved censure. Some firms have never ceased to put obstacles in the way of the work that has been going on with such commendable energy and faithfulness, but, on the other hand, there have been those who if given the slightest encouragement would have served the Council as friends rather than enemies or disinterested people. If the Council finds, as it no doubt does, irregulari-

ties and inconsistencies in the manufacture and sale of certain products, it is but fair and reasonable to attempt to gain correction without the necessity of publicity and the possibility of friction and antagonism. We believe that in some instances the censure or implied criticism given publicity by the Council has been premature and hence unreasonable, even though having a basis of fact. This, it seems, has led to misunderstandings, unpleasantness, and even antagonisms that could have been avoided, and with the accomplishment of even better results.

THE JOURNAL has supported and will continue to support the Council in all efforts to bring about better things in the manufacture and distribution of pharmaceutical specialties, chemicals and biologic products, but we believe that the Council has assumed an arbitrary and uncompromising attitude in some of its edicts and opinions which has not tended to create the best feeling or bring about the best of results, and we are not prepared to give the Council the benefit of an opinion which would stamp their acts as always and invariably above question or criticism.

The great manufacturing houses catering to the desires and needs of the medical profession are doing a great work in the field of constructive pharmacology, chemistry and therapeutics. We owe to them many of our most valuable discoveries in medicine, and we owe much to them for the work that they are now doing in developing biological products. It is not fair to them nor to us to attribute to them nothing but selfish or commercial motives in doing what they are doing. Let us do something more than damn them with faint praise. Let us encourage them in their work which is of such inestimable value to us and to mankind. They may not have the same ethical ideals that we have, but that does not always brand them as dishonest or tricky. In fact, it is more than probable that they will meet our ideals if we but give them proper encouragement and support in all laudable efforts. It is more than probable that they would appreciate the candid advice and criticism of the Council before adopting standards or practices, but in giving advice and criticism we must be careful that we are not unjustifiably hypercritical, and that our advice is not too pregnant with selfishness. The Council is an excellent body, and it has been created with an excellent field of usefulness before it, but we believe it requires the effect of a damper or its fire of usefulness will soon burn out.

DEATHS

EDWARD T. BUCK, M.D., Indianapolis, died October 19 of heart failure.

NATHAN L. HAMMER, M.D., died at his home in Indianapolis, October 27.

DAVID O. MUNSEY, M.D., died October 30 at his home in Gaston, Ind.; aged 67.

MRS. LILLIAN DAVIS, wife of Dr. Arthur Davis, Hammond, died at her home October 11.

MRS. MARTHA L. MURRAY, widow of late Dr. A. P. Murray, died at her home in Albany, November 5.

ALBERT B. WOLVERTON, M.D., Wakarusa, died in the Marion Soldiers' Home Hospital, September 14, aged 65. He was a graduate of the Indiana Medical College, Indianapolis, in 1873.

SAMUEL E. CROSE, M.D., Indianapolis, died October 27 from pneumonia; aged 47. Dr. Crose was a graduate of the old Asbury University (now DePauw) and the Central College of Physicians and Surgeons.

J. J. BAKER, M.D., formerly of Westfield, died at the home of his daughter in Peru, October 20, aged 62. Dr. Baker received his early education at the Zionsville Academy and was graduated from the Physio-Medical College of Medicine at Indianapolis in 1875. He practiced medicine at Westfield, Ind., for many years, but was compelled to retire from active practice on account of poor health.

NEWS NOTES AND PERSONALS

INDIANAPOLIS

DR. R. G. HENDRICKS, Indianapolis, and Miss Grace Newcomer, Noblesville, were married on October 15.

DR. J. R. EASTMAN attended the meeting of the Southern Surgical Association, recently held at New Orleans, La.

THE marriage of Dr. F. W. Cregor, Indianapolis, to Miss Gertrude Horn of Valparaiso, has been recently announced.

DR. WALTER THORNTON, Indianapolis, was married on October 17 to Miss Juanita Young of Montpelier, Ind.

THE Lincoln Hospital "Tag Day," October 10, resulted in the collection of nearly \$700, to be used in the support of the hospital.

DR. BRYAN, Bloomington, president of the University, and Dr. Charles Coombs, secretary of the State Association, were in attendance at the regular meeting of the Indianapolis Medical Society, October 28.

A MEETING of the Council of the Indiana State Medical Association was held in this city October 28. The members of the council were the guests of Drs. W. N. Wishard and A. C. Kimberlin at a dinner at the Columbia Club.

THE initial meeting of the year of the Review Club was held at the University Club, the guests of Dr. Mumford. The time was largely occupied by an interesting account of the International Congress of Medicine given by Dr. Kimberlin.

DR. ALBERT E. STERNE, Indianapolis, was married on October 18 to Stella Gallup Pickrell, Evanston, Ill., and left immediately for an extended wedding trip in the South. They will be at home after January 1, at 1834 E. Tenth Street, Indianapolis.

GENERAL

THE City Hospital of Linton was opened November 1 to the public.

DR. A. A. KRAMER of Butler was elected mayor of that city in the recent election.

DR. JOHN P. BLACK, formerly of Greenfield, has recently moved to Indianapolis.

DR. CAMDEN BOTHWELL, Martinsville, was married October 11 to Miss Laura Overton.

DR. P. C. BERNS has been named to succeed Dr. A. F. Knoefel on the Linton Hospital board.

DR. and MRS. W. C. MOSS of Winamac have left recently for Jacksonville, Fla., to spend the winter.

DR. OLIVER GARD was elected mayor of Frankfort on the Republican ticket in the recent election.

DR. J. F. GILLESPIE, Greencastle, had his left arm broken at the elbow in a runaway accident on October 23.

DR. E. C. COOK, who has practiced medicine in Madison for the past few years, has located in Pittsburgh, Pa.

DR. F. J. SPILMAN of Connersville returned home October 14 after spending a month along the Western Coast.

DR. Z. M. BEAMAN, North Manchester, who has been seriously ill at Hope Hospital, Fort Wayne, is recovering.

DR. GLEN D. KIMBALL returned to his home in Marion on October 8 after having spent five months in the West.

DR. J. E. NIXON, Portland, succeeds the late Dr. J. B. Garber, Dunkirk, on the Jay County Pension Examining Board.

THE trial of Dr. William B. Craig, Indianapolis, charged with the murder of Dr. Helen Knabe, has been set for November 28.

DR. NOAH J. GOSHORN, Washington, Ind., and Miss Suda Tate were married October 15, and left for a several months' stay in Florida.

DR. PAUL E. BOWERS, Michigan City, has been appointed first lieutenant of the Medical Reserve Corps of the U. S. Army, by examination.

DR. L. H. HARRISON, formerly of Butler, left the middle of November for St. Louis, Mich., where he has taken charge of a sanatorium.

DR. DAVID C. RONEY, Ridgeville, Ind., has sold his practice to Dr. C. W. Mullikin, Greensburg, and because of poor health will locate at Wisner, Miss.

DR. E. L. SWADENER, formerly physician in the Indian service at Keshena, Wis., has located at Sandford, Ind., and will engage in general practice.

SATURDAY, October 11, was observed as Tag Day by the Reid Memorial Hospital, Richmond, to raise money for new equipment for the hospital.

DR. GRANT C. MARKLE, Winchester, has been awarded damages of \$7,600 for injuries received when struck by a train on the Big Four Railroad, last January.

DRS. J. A. COOK, Goshen, GEORGE A. WHIPPY, Goshen, and C. R. BASSLER, Elkhart, have been appointed on the Pension Examining Board of Elkhart County.

DR. JOHN R. PATE and DR. McCLURE of Milan, and DR. T. M. BREXTON of Osgood, have been appointed on the Pension Examining Board of Ripley County.

THE annual commencement exercises of the Lutheran Hospital Training School for Nurses, Fort Wayne, were held November 5, ten nurses receiving diplomas.

DR. SATER NIXON, Farmland, has been appointed coroner of Randolph County to fill the vacancy left through the resignation of Dr. C. Roney, Ridgville.

DR. A. B. LOCKRIDGE, Rockville, has sold his practice to Dr. Collins, Mecca, and has moved to Pueblo, Colo., where he will continue in the practice of medicine.

DR. GEORGE F. KEIPER, Lafayette, attended the annual meeting of the American Academy of Ophthalmology and Oto-Laryngology at Chattanooga, October 27 to 29.

DR. A. W. GIFFORD has returned to Tipton to resume the practice of medicine in that town after having spent several months in Springfield, Mo., on account of Mrs. Gifford's health.

IN an eight-day campaign, ending October 24, the citizens of Marion raised \$45,000 to build a new Grant Comty Hospital and increase the efficiency of the Marion Normal Institute.

THE board of county commissioners of Hamilton County, on a petition of the citizens of the county, voted to make an appropriation for the establishment of a new county hospital.

THE thirty-ninth annual meeting of the Mississippi Valley Medical Association was held at New Orleans, La., October 23, 24 and 25, under the presidency of Dr. Albert E. Sterne, Indianapolis.

DR. O. B. NESBIT, Valparaiso, has been selected by the Gary Board of Education to succeed Dr. C. W. Yarrington as school physician, Dr. Yarrington having resigned to engage in private practice.

DRS. C. NORMAN HOWARD and A. C. McDONALD have installed in the McDonald Hospital at Warsaw one of the latest type interrupterless x-ray machines. The machine will be a valuable addition to the apparatus of the hospital.

THE physicians of Portland and surrounding towns in a meeting at Portland, October 10, were addressed by Dr. Charles P. Emerson, dean of the Indiana University School of Medicine, on the subject, "Medicine, Past, Present and Future."

INDIANA has recently formed a state organization in the tuberculosis prevention work, with W. D. Thurber, Indianapolis, as president; Dr. C. A. Hartley, Evansville, vice-president, and Mrs. E. B. Connolly Kehrner, Anderson, secretary-treasurer.

DR. SAM WEIR, Terre Haute, has formed a partnership with Dr. Ed. Weir, who has recently come to Indiana from Nebraska. Dr. Ed. Weir graduated from Harvard Medical School in 1893, and has practiced medicine in Nebraska since that time.

DR. J. P. WARD and wife, Vevay, left October 21 for New Orleans, La., to attend the meeting of the Mississippi Valley Medical Association, at which meeting Dr. Ward presented a paper. From New Orleans they will go to Panama to see the now practically completed canal.

A STOCK company, under the management of Dr. Frank Stackhouse, has organized with a capital of \$20,000 to establish the Dr. Stackhouse Sanitarium at Crawfordsville. The sanatorium will be open to all physicians who desire to obtain better facilities in the treatment of disease.

DR. L. M. BARNEY, Elkhart, while working in his chemical laboratory at Tampa, Fla., recently, met with an accident which may result in him being rendered totally blind. Through nitric acid his right eye was totally destroyed, and his left eye is affected to such an extent that the outcome is uncertain.

THE United States Circuit Court of Appeals has affirmed the decision of the United States District Court for the District of Indiana in the benzoate of soda cases, which decision upholds the power of the Indiana State Board of Health to prohibit the sale of catsups, pickles and other foodstuffs containing benzoate of soda as a preservative.

THE Richmond Commercial Club is cooperating with the members of the Wayne County Medical Society and the Wayne County Anti-Tuberculosis Society for the establishment of a tuberculosis colony. The plan to establish a tuberculosis colony on the grounds of the Reid Memorial Hospital has been abandoned because the site is on or near marshy ground.

THE annual meeting of the Seventh Indiana Councilor District Medical Association will be held at Plainfield, November 19. The following physicians will present papers: Drs. Will Shimer, Indianapolis; E. D. Clark, Indianapolis; J. S. Ragen, Plainfield; O. N. Torian, Indianapolis; E. E. Padgett, Indianapolis; E. M. Sweet, Martinsville; C. E. Cottingham, Indianapolis; W. D. Hoskins, Indianapolis; E. O. Lindenmuth, Indianapolis.

SOUTH BEND took first steps in the conservation of public health and in treatment of infectious diseases when on October 16 the St. Joseph County Medical Society appointed a committee to investigate and make a report on the following subjects: Medical inspection in the city schools; foundation of city hospital, or arrangement with present institutions to care for the indigent and emergency cases; establishment of city medical laboratory; establishment of a contagious-disease hospital.

THE Rockefeller Education Board has recently made a gift of \$1,500,000 to Johns Hopkins Medical School, Baltimore. This big gift was made with the sole condition that the income be used to permit the staff of professors to devote their time to their studies and classes. In honor of the eminent pathologist whose work has long been identified with Johns Hopkins, the gift is to be called the William H. Welch endowment for clinical education and research.

Smaller gifts were made to Barnard College, New York; Wellesley College, Wellesley, Mass., and Ripon College, Ripon, Wis.

THE American Association of Immunologists was organized on June 15, at Minneapolis, Minn., with forty-one charter members, all of whom have been pupils of Sir Almroth E. Wright of London. Dr. Gerald B. Webb of Colorado Springs was elected president, and Dr. Martin J. Synnott of Montclair, N. J., secretary. The first annual meeting of the society will be held at Atlantic City on June 1, 1914, which is the same week of the annual session of the American Medical Association. The program will be made up of original papers dealing with the different branches of vaccine therapy and immunology.

DR. CHRISTIAN R. HOLMES, the well-known eye, ear, nose and throat surgeon of Cincinnati, has been selected by the Board of Trustees of the University of Cincinnati as the dean of the medical department of the institution. It was largely through the indefatigable work of Dr. Holmes that the city of Cincinnati was induced to erect its wonderful municipal hospital at a cost of over \$4,000,000, and, judging by the success which Dr. Holmes met with in the establishment of the hospital, it is to be expected that the Medical Department of the University of Cincinnati will become one of the leading educational institutions in the country.

SINCE October 1 the following articles have been accepted for inclusion with New and Non-official Remedies:

Strepto-Bacterin (Scarlatina Bacterin); Anti-streptococcic Vaccine (Scarlatina Prophylactic), (Abbott Alkaloidal Co.).

Tannigen Tablets, 8 grs. (The Bayer Company, Inc.).

Silk Peptone "Hoechst" (Farbwerke-Hoechst Co.).

At the request of the manufacturer the Council has voted to reconsider the acceptance of and to omit the following from New and Nonofficial Remedies:

Alypin Tablets, 3 1/3 grains; Alypin Tablets, 1 1/8 grains; Alypin Tablets, 3/4 grain; Citarin Tablets, 15 grains (The Bayer Company, Inc.).

In view of the report of untoward effects from Hormonal and the claim of the manufacturer that the product now on the market differs from that described in New and Nonofficial Remedies the Council has rescinded the acceptance of:

Hormonal (Hormonal Intramuseular and Hormonal Intravenous) (Schering & Glatz).

THE AMERICAN COLLEGE OF SURGEONS

PRESENTED BY THE BOARD OF REGENTS
OF THE COLLEGE

What is the American College of Surgeons, why should it be, what does it intend, what has it done?

This note is in answer to these often-asked questions.

American surgery at its best is the best surgery of to-day, but the average of surgery in this country is not only far below this standard, but below even a reasonable standard.

This condition of affairs is largely the result of general failure to appreciate the qualifications and conditions needful for good surgery.

The very fact that surgery has so advanced in recent years has tended to loss of perspective.

Just because the art has advanced, its practitioners must be held to a stricter accounting of fitness and of results attained.

The profession has been no more to blame than the lay public, perhaps—certainly the vast multiplication of small hospitals, an important factor, is not to be laid at the doctor's door, but before the public shall win to a wider perspective the physician and surgeon must lead the way.

The time seems ripe for something like a standardization of surgery—some understanding of the responsibilities of surgical work, some recognition of the difference between surgical work and medical practice, some definition of the special training and experience that a doctor should have before he undertakes the responsibilities of the graver operations of modern surgery.

To-day is the day of specialization in all lines of endeavor. No one should be more really a specialist than the surgeon.

The American College of Surgeons, about to hold its first formal convocation, is simply the expression of an attempt to bring about the setting of a standard for surgery in this country, and to work for a gradual raising of this standard.

The intent is to establish the standard, to begin with, by recognizing those men now in practice whose training, experience and character entitle them to be considered specialists in surgery or in the strictly surgical specialties.

This choice must be independent of affiliations with different schools of practice, or with whatever institutions or groups of men—a choice based on individual fitness alone.

The new college is fortunate in its absolutely democratic origin.

In November, 1912, at a session of the "Clinical Congress of Surgeons" in New York—a body of men having no cohesion save their common interest in surgery—a democratic and open, not a selective, body—it was proposed and voted that the presiding officer appoint a committee to consider the feasibility of such a college—the committee to act wholly independently.

The president appointed ten of those present, men from all over the country, with Canada represented. After consideration, this committee presented its plans to representative groups of active surgeons in a score of large cities all over the country, and, since these plans met approval, the groups of men from these cities were asked to go to Washington last May, to meet and to

proceed to organize. Accordingly, in May, 1913, 350 men, from Toronto to New Orleans, from Boston to San Francisco, and from most of the large towns between, met with the committee, organized the college, adopted a constitution and by-laws, elected officers and laid out plans for the future.

Much of the work of the college was vested in a Board of Regents, fifteen in number, elected at that time. In the selection of candidates for admission the regents are supported by a Central Committee on Credentials, with separate subcommittees for each state and province.

At the convocation of the American College, November 13 next, to be opened by the President of the Royal College of Surgeons of England, Sir Rickman Godlee, the fellowship will be granted to nearly a thousand men from the States and Canada, carefully picked from among many applicants, representing, we believe, the best in surgery and the surgical specialties.

The movement has so far met with a gratifying response and interest.

Other fellows will be admitted, after scrutiny, for a year to come.

After that, it is the intention to admit by examination only.

In time this scheme will result in the formation of a body like the Royal College: in time the standard set will be more definite and will tend to rise steadily.

No standard of academic examination could be applied to those now in active service.

Those who have acted for the college can only ask the profession and ask the public to believe that they have used their best judgment in choosing among those who have asked to join in this movement.

It has been no light task: it cannot have been done perfectly: it has often been done against personal friendship as well as in spite of prejudices—those responsible have done the best they could, or knew, in their attempt to pick men really qualified.

There has been criticism—there will be more criticism. There are two special points of attack: First, because the college is to be a "guild"—perhaps it is, in a sense, but always an open guild, open to all who can show fitness, wherever they come from; second, because it excludes men, who, though not specialists, are doing good work in surgery: there are such men, but the college does nothing to them, the failure to include them means merely that they are not, with few exceptions, the men best fitted to do the work in raising the standards that this college has set for its task.

As for the practitioner of medicine, we believe that our action will help him to gain once more the position which is not always granted him to-day, that of the trusted adviser of the family, and we believe that he will be the gainer if his patients learn not to demand work of him outside his chosen field.

The field of medicine offers a field not smaller or less worthy than that of surgery; they are not merely the same field.

A word more and we have done — the college has taken up one evil, so rampant in certain states as to threaten the standing of the profession as a whole, both practitioners and specialists, namely, that form of commercialism known as fee-splitting.

The college will not knowingly select for, or retain within, its ranks any one who practices fee-splitting, directly or by subterfuge.

SOCIETY PROCEEDINGS

INDIANA STATE MEDICAL ASSOCIATION

WEST BADEN SESSION, SEPT. 25 AND 26, 1913.

MINUTES OF THE GENERAL MEETINGS

Sept. 25, 1913—First General Meeting

The first general meeting was held at the West Baden Springs Opera House, and was called to order at 9:30 a. m., by the President, Dr. A. C. Kimberlin of Indianapolis, who delivered an address entitled "Pitfalls in the Progress of Medicine."

Dr. H. C. Sharp, on behalf of the Committee on Arrangements, extended a welcome to the members and guests, and made the following announcements:

Wednesday evening there will be an informal smoker at the atrium of the Baden Springs Hotel at 9 o'clock. Ladies are invited.

Thursday, Sept. 25 there will be a breakfast given to the county medical society secretaries by Dr. Kimberlin at 8 a. m.

There will be golf and tennis for the ladies at 10 a. m. In the afternoon there will be an automobile drive for ladies.

In the evening there will be an illustrated lecture given on hookworm disease and pellagra by Dr. Lillian H. South of Bowling Green, Ky. This lecture will be followed by an illustrated lecture by Mr. Charles Truax of Chicago on the Yellowstone Park.

Following the announcements made by Dr. Sharp, there was a symposium on "Chronic Bright's Disease."

Papers were read as follows:

1. "The Symptomatology and Diagnosis of Chronic Bright's Disease," by Dr. G. W. McCaskey, Fort Wayne.
2. "Renal Pathology and Urinary Findings in Chronic Bright's Disease," by Dr. Henry R. Alburger, Indianapolis.
3. "Vascular Changes Secondary to Bright's Disease," by Dr. C. F. Neu, Indianapolis.
4. "Eye Lesions in Chronic Bright's Disease," by Dr. Albert E. Bulson, Jr., Fort Wayne.

5. "The Influence of Kidney Lesions in Determining the Selection of Anesthetic and Surgical Risks, Operative Procedures and Postoperative Results," by Dr. Miles F. Porter, Fort Wayne.

Before the discussion on this symposium was opened Dr. Albert E. Sterne arose and said: "One of the founders of this Association, Dr. W. A. Wishard of Indianapolis, is advanced in years. I understand he is 97 years of age and at the present time is in feeble health, and I think it would be a fine expression on the part of this Association to instruct the Secretary to send to Dr. Wishard the hope of this body that he may be privileged to regain his health and to reach the century mark of life. I move you, Mr. President, that this Association send Dr. Wishard such an expression of its good feeling and good wishes through the Secretary."

Motion seconded by Dr. Porter and unanimously carried by a rising vote.

The symposium was then discussed by Drs. Wynn, Martin, Heath, Eastman, Kahlo, Schmauss, Fankboner, Potter, and discussion closed by Drs. McCaskey and Bulson.

Adjourned.

Sept. 26, 1913—Second General Meeting

The general meeting was called to order at 2 p. m. by President Kimberlin.

Dr. R. D. Carman of Rochester, Minn., read a paper entitled "The X-Ray as a Diagnostic Aid in Gastric Lesions," which was illustrated by numerous stereopticon slides.

In a symposium on visceroptosis, the following papers were read:

1. "Symptomatology," by Dr. John C. Sexton, Rushville.
2. "The X-Ray Diagnosis," by Dr. A. M. Cole, Indianapolis.
3. "The Medical Treatment," by Dr. Walker Schell, Terre Haute.
4. "Present-Day Status of Surgical Treatment," by Dr. Edwin Walker, Evansville.

The symposium was discussed by Drs. Eastman, Bowden, Davidson, Sterne, Linthicum, Mix, Kimberlin, and the discussion closed by Dr. Cole.

Following the discussion of the symposium, the newly elected President was inducted into office, after which the Association adjourned to meet at Lafayette in September, 1914.

MINUTES OF SURGICAL SECTION

Sept. 25, 1913

The Surgical Section met at 2 p. m. and was called to order by the chairman, Dr. M. A. Boor, Terre Haute.

Dr. W. D. Gatch, Indianapolis, read a paper on "Manner of Growth and Surgical Treatment of Cancer of the Breast."

Dr. Murray N. Hadley, Indianapolis, read a paper entitled "Cancer Prophylaxis."

These two papers were discussed together by Drs. Martin, Eastman, Denny, Clark, Porter, Ross, Ford, Schmauss, Potter, Marshall, Pfaff, and in closing by Dr. Gatch.

Dr. Charles Sudranski, Indianapolis, read a paper on "Early Diagnosis of Ectopic Pregnancy."

This paper was discussed by Drs. Pfaff, Schmauss, Kennedy, after which the section adjourned.

Sept. 26, 1913

The section was called to order at 10:30 a. m. by the chairman.

Dr. H. G. Hamer, Indianapolis, read a paper entitled "Stricture of the Urethra."

The paper was discussed by Drs. Townsend, Ehrich, Erdmann, and in closing by the author of the paper.

The following were elected officers of the section: chairman, Dr. Joseph Rilus Eastman, Indianapolis; secretary, Dr. Thomas B. Eastman, Indianapolis.

Adjourned.

MINUTES OF THE EYE, EAR, NOSE AND THROAT Section

Thursday, Sept. 25, 1913

The section was called to order at 2:15 p. m. by the chairman, Dr. E. De Wolf Wales, Indianapolis.

Chairman's Address, by Dr. Wales.

"Indications for Surgery of the Ethmoid and Sphenoid Labyrinth, with Report of Cases," by Dr. James McCall, Jr., Terre Haute.

Discussed by Drs. Cline, Spohn, Parker, Sharp, Brose, Stillson, Tomlin, Keiper, and in closing by Dr. McCall.

"Ocular Neurasthenia," by Dr. John R. Newcomb, Indianapolis.

Discussed by Drs. Bulson, Keiper, Spohn, Heath, Heitger, Parker, McCall, Sharp, and the discussion closed by Dr. Newcomb.

Dr. Keiper: Since we met last year one of our number, Dr. James L. Thompson, has passed away. He was a pioneer in ophthalmology in this state, a man beloved by all who knew him well, and I believe that we should take notice of these things. I would therefore move you, Mr. Chairman, to appoint a committee to draw up resolutions relative to the death of Dr. Thompson.

Seconded and carried.

Dr. Wales appointed the following to act on such committee: Drs. J. O. Stillson, F. C. Heath and George F. Keiper. To report at the next morning's session.

Dr. Sharp: A year ago at this time I was unable to attend the meeting of this section. I was in the hospital and seemed to be on my very rapid way toward the unknown country. I want to thank this section for their very kind action and sympathetic words to me and my family at that time.

"Local Manifestations in the Ear, Nose and Throat. Associated with Disease of the Nervous System," by Dr. J. Heitger, Bedford.

Discussed by Drs. Stevenson, Brose, and Heitger in closing.

Adjourned.

Evening Session

The section was called to order at 8:30 by the chairman, Dr. Wales.

"A Brief Consideration of the Occupational Traumatism of the Eye," by Dr. E. M. Shanklin, Hammond.

Discussed by Drs. Parker, Heath, Keiper, and Shanklin in closing.

Adjourned.

Friday, Sept. 26, 1913

The section was called to order at 9:30 by the chairman, Dr. Wales.

"Diagnosis and Treatment of Heterophoria and Heterotropia," by Dr. Frank A. Morrison, Indianapolis.

Discussed by "Drs. Hughes, Newcomb, Sharp, and Morrison in closing.

"Direct Laryngoscopy, Bronchoscopy and Esophagoscopy, with the Modified Bruening Bronchoscope," by Dr. D. W. Layman, Indianapolis.

Discussed by Drs. Knapp, Heitger, Overman and Layman in closing.

"Report of a Case of Symptomless Melanotic Sarcoma," by Dr. A. C. Bartholomew, South Bend. (Read in abstract.)

Discussed by Dr. Sharp.

"Contact Points of Ophthalmology and Rhinology with General Medicine," by Dr. Theodore Potter, Indianapolis.

No discussion.

The committee appointed by the chairman to draw up resolutions with regard to the death of Dr. Thompson then made the following report:

James Livingston Thompson, M.D., Nestor of Ophthalmology in Indiana. None knew him but to love and honor him. In his professional life it was an impossibility for him to be insincere. In his family and private life he exemplified the very highest characteristics as husband and father. He was a Christian man, a philosopher, an honorable man, a great surgeon.

J. O. STILLSON.

F. C. HEATH.

GEORGE F. KEIPER.

It was moved and seconded that the report be adopted. Carried.

Election of Officers

The following officers were elected for the coming year:

Chairman, Dr. W. N. Sharp, Indianapolis.

Secretary, Dr. J. Heitger, Bedford.

Dr. Sharp and Dr. Heitger made short speeches of thanks and appreciation of the honor conferred on them.

The following is a list of those who have paid Association dues between Sept. 1 and Nov. 1, 1913. Errors in name or address should be reported to Secretary Combs, giving number of the membership card in order to facilitate prompt detection of the error on the membership records. This list as published is included on the mailing list of THE JOURNAL, and any member whose name appears on this list and who does not receive his JOURNAL is requested to write for a duplicate copy:

| NAME AND ADDRESS | COUNTY SOCIETY |
|--|-----------------|
| 2463 L. F. Bills, Atlanta..... | Hamilton |
| 2464 W. H. Reader, New Amsterdam..... | Harrison |
| 2465 Paul Cromer, St. Marys..... | Franklin |
| 2466 E. C. Denny, Scotland..... | Greene |
| 2467 G. W. Varner, Evansville..... | Vanderburg |
| 2468 R. E. Johnson, Hedrik..... | Fountain-Warren |
| 2469 R. C. Kirkwood, Bayne, Washington | Fountain-Warren |
| 2470 Geo. F. Butler, (Mudlavia) Kramer | Fountain-Warren |
| 2471 E. E. Padgett, Hume-Mansur Bldg., Indianapolis..... | Marion |
| 2472 C. W. McClintock, Hume Mansur Bldg., Indianapolis..... | Marion |
| 2473 John Oliver, 432 N. Delaware St., Indianapolis | Marion |
| 2474 A. P. Hauss, Jr., New Albany..... | Floyd |
| 2475 M. F. Fisher, Markle..... | Huntington |
| 2476 B. H. Cook, Anderson..... | Madison |
| 2477 E. Masgana, Linton..... | Greene |

| NAME AND ADDRESS | COUNTY SOCIETY |
|---|-----------------|
| 2478 Frank Fitch, Newton Claypool Bldg., Indianapolis | Marion |
| 2479 C. M. Sautter, Logansport..... | Cass |
| 2480 D. S. Goble, Evansville..... | Vanderburg |
| 2481 S. G. Hollingsworth, Bradentown, Fla.... | Clay |
| 2482 J. P. Worrell, Terre Haute..... | Vigo |
| 2483 W. F. Molt, Newton Claypool Bldg., Indianapolis | Marion |
| 2484 Emerson Barnum, Manila..... | Rush |
| 2485 Fred Overman, Willoughby Bldg., Indianapolis | Marion |
| 2486 G. V. Woollen, American Central Life Bldg., Indianapolis | Marion |
| 2487 A. R. Tucker, Noblesville..... | Hamilton |
| 2488 Baxter Begley, Inglefield..... | Vanderburg |
| 2489 James McCall, Terre Haute..... | Vigo |
| 2490 R. T. Olmsted, Versailles..... | Ripley |
| 2491 E. R. Sisson, Greenfield..... | Hancock |
| 2492 E. E. Mace, New Palestine..... | Hancock |
| 2493 Chas. K. Bruner, Greenfield..... | Hancock |
| 2494 J. E. Ferrell, Greenfield..... | Hancock |
| 2495 E. R. Gibbs, Greenfield..... | Hancock |
| 2496 Murray Hadley, Willoughby Bldg., Indianapolis | Marion |
| 2497 J. W. Carnack, 2409 E. 10th St., Indianapolis | Marion |
| 2498 E. P. Busse, Madison..... | Vanderburg |
| 2499 Ray Hume, 2005 Octavia St., New Orleans, La. | Rush |
| 2500 E. J. Verwayne, Evansville..... | Vanderburg |
| 2501 Harry Knott, Plymouth..... | Marshall |
| 2502 C. J. Stevens, Roekville..... | Parke-Vermilion |
| 2503 Geo. S. Greene, Gary..... | Lake |
| 2504 K. K. Straughan, Waveland..... | Montgomery |
| 2505 E. L. Dewey, Whiting..... | Lake |
| 2506 Robert Henderson, Kingsbury..... | LaPorte |
| 2507 W. E. Ogden, LaPorte..... | LaPorte |
| 2508 Henry J. Told, Florence..... | Switzerland |
| 2509 M. F. Woodard, Bloomingdale.. | Parke-Vermilion |
| 2510 D. E. Taylor, Velpen..... | Pike |
| 2511 Edward Moser, Woodburn..... | Allen |
| 2512 O. H. Rees, Knightstown..... | Henry |
| 2513 Walter McBeth, Burnetts Creek..... | White |
| 2514 Chas. A. Miller, Princeton..... | Gibson |
| 2515 R. O. Kennedy, Milroy..... | Rush |
| 2516 J. D. Garrett, Willoughby Bldg., Indianapolis | Marion |
| 2517 Geo. W. Combs, Pennway Bldg., Indianapolis | Marion |
| 2518 F. E. Abbett, Hume-Mansur Bldg., Indianapolis | Marion |
| 2519 S. C. Wilson, Anderson..... | Madison |

INDIANAPOLIS MEDICAL SOCIETY

Meeting of Oct. 7, 1913

Meeting called to order by Dr. Ferguson. Present, sixty. Minutes of preceding meeting read and adopted. Application for first reading—Arthur Mitchell Hetherington.

The program consisted of an address by Dr. Lewis Wine Bremmmerman of Chicago, who was present as the guest of Dr. W. N. Wishard. Dr. Bremmmerman spoke on "The Diagnostic Value of the Cystoscope." As far back as 1807 attempts were made to look into urethra. In 1877 appeared the first instrument for bladder use. Edison's incandescent light led to perfection of cystoscope. In 1885 was first catheterization of the ureter in female. A few years later male ureter was catheterized.

There are only two contra-indications to use of cystoscope, viz., acute urethritis and a urethra too small in caliber to admit instrument. Cystoscopy should be done as a routine in deeper genito-urinary examinations.

A complete examination requires three types of instrument, viz., direct, indirect and retrograde vision instruments.

Water dilatation of bladder is better for routine work. Air only now used in selected cases.

Cystoscopy is indicated in any genito-urinary condition in which there is disturbance of the urinary function. The cystoscope, in order to be accurate as a diagnostic help, must be used hand in hand with the microscope, the ureteral catheter and the skiagraph. Functional tests are important.

DISCUSSION

Dr. Charlton: We owe much to the cystoscope. There is, however, a tendency to abuse the use of an instrument. It can be used and is used in cases where it is not indicated. The endoscope is most certainly used too much, and there is often harm done by its improper usage.

Dr. Erdman: Women with pain in right side may have a diagnosis cleared up by the use of cystoscope and ureteral catheter. Promiscuous catheterization of ureters is wrong. In considering frequency of urination it is well to remember that frequency increases as the day grows old.

Dr. Bremmmerman, closing: Dr. Erdman mentioned a good point in right-sided pain in women where diagnosis is often confusing. Cited a case in which kidney, appendix, ureter were treated without result and the trouble later found to be due to a seminal vesiculitis.

Dr. W. N. Wishard: We are fortunate to have with us a man so expert in the use of this valuable instrument. The type of instrument to be used is of great importance. Direct and indirect and retrograde vision instruments should be used and an examination is not complete unless whole bladder wall has been seen. Stones lying in deep folds of bladder are hard to find and it is quite possible that one may be overlooked even in a careful examination.

Meeting adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of Oct. 14, 1913

Meeting opened at 8:30 by Dr. Ferguson. Number present, seventy-eight. Minutes of preceding meeting read and adopted. The application of Dr. W. G. McBride was read for first time. Dr. Kenosha Sessions was elected to membership in the society.

Dr. John Kingsbury read a paper on the "Philosophy of Vaccine Therapy." In all vaccine work we borrow the methods of Nature's laboratory. Each variety of pathogenic bacterium is capable of producing toxins which when entering the blood-stream produce characteristic symptoms. In pneumonia, recovery is due to an immunity established during the course of the disease. Toxins of organism necessary to stimulate formation of antibodies in blood. Vaccines are simply aqueous solutions or suspensions of toxins of the various pathogenic bacteria. Vaccine treatment contra-indicated in pneumonia because there are already too many toxins present. Class of case in which vaccine treatment is applicable is that in which toxemia is slight. To this class belong the localized, low grade, walled-off infections.

Dose of vaccine should be gauged by local reaction. Frequently the diseased process is caused to flare up for a time after vaccine is given. This indicates that proper treatment is being used.

The autogenous vaccine is of course the one to use whenever it can be secured. Raising the virulence of vaccine before making vaccine increases the efficiency.

The use of stock vaccines is unscientific to say the least.

DISCUSSION

Dr. W. T. S. Dodds: Do we believe in immunity, antibodies, alexines precipitens, agglutinens? Recovery from this disease is due to these powers. Nature cures more disease than the doctor. It is when Nature is failing that the doctor steps in and helps. Vaccination is merely the introduction of a specific antigen which stimulates the formation of antibodies in the blood. Immunity is in proportion to power of antibodies. Much harm can be done with virulent vaccines. None with attenuated. Stock vaccines harmless and as a rule useless. They are attenuated too thoroughly. They do not contain an active antigen. Vaccines are efficacious in application to the so-called self-limited diseases only.

Dr. Severance Burrage: Poor results with vaccines are due to faulty diagnoses; also to the lack of knowledge of the toxins produced by various bacteria. Diseases caused by bacteria, producing exotoxins, are unfavorable for the application of a vaccine unless the toxins are first controlled by administration of an antitoxin. Then administration of a vaccine is good therapy. Stock vaccines are more or less unreliable because of attenuation.

Dr. Bernard Erdman: According to Dr. Dodds we should get good results in self-limited diseases. Why then do we not get good results with vaccines in gonorrhea, which is a self-limited disease?

Dr. Ferguson: It seems that stock vaccines are truly valuable in producing immunity in cases in which the patient has not the disease.

Dr. Alfred Henry: Reported case of general staphylococci infection of grave type which was apparently cured by the judicious administration of an autogenous vaccine. Patient was shown to society.

Dr. H. S. Thurston: Reported cases as follows: Furunculosis—*staphylococcus aureus*—autogenous vaccine—recovery. Furunculosis—*staphylococcus albus*, which later became *staphylococcus aureus*. Recovery. Acute mastoiditis in which operation had been advised and refused. No benefit from vaccine. Operated later. Chronic bronchitis. Some improvement. After three months, recurred. Under treatment again is showing marked improvement but possibility of cure is doubtful. Series of acne: Results good, poor and indifferent. Autogenous vaccines used in all.

Dr. H. K. Langdon: Reported series of cases treated with vaccines. Ozena—improvement—autogenous. Abscess necrotic rib. Operation refused. Improved under autogenous vaccine. Chronic antrum infection. Improvement—Autogenous. Gonorrhea—complete recovery—autogenous. Chronic otitis media—much improved—autogenous.

In all these cases the vaccines were not heated to reduce virulence but were exposed to bright sunlight for one hour.

Dr. Goethe Link: The general practitioner should have a vaccine which he can use himself. At the present time the stock vaccine fills that place. I recall

three cases of carbuncle. Surgery in each helped but little. I waited for each to nearly die, then in each case I almost surreptitiously introduced generous doses of phylacogen. Then I thought surely the patients would die; they were so sick. But they didn't. They all got well and I felt that my unscientific application was not so bad after all. It is well to be scientific, for science is beautiful. It certainly is fine if you can shoot the quail in the eye with a rifle, but some of us must be satisfied to get them with a shotgun.

Dr. Pantzer: Reported case of tetanus in boy. While tetanus was active and seemingly progressing to fatality the boy contracted scarlet fever from his brother. With manifestation of scarlet fever in tetanus case, the tetanus quickly and completely disappeared.

Dr. Foreman: After all we know but little about vaccine therapy. If I get results with a therapeutic agent, even though I do not know what I am using or how it acts, I am going to keep on using it. Of course I should like to know how what I am using accomplishes the cure, but because I do not know I do not feel that I must stop using it. My duty is to help the patient no matter what the means may be. I have had good results with stock vaccines. We make a mistake in being too scientifically dogmatic.

Dr. Harry Jacobs: I will admit that the autogenous vaccine is more scientific, but there are many cases in which the autogenous cannot be obtained. Stock vaccines have given me satisfactory results in a great many cases. In some they have failed. But there may also be failures with the autogenous.

Dr. F. E. Abbett: Vaccines are often given very incautiously and the doses are too large as a rule. Once a vaccine or a serum is introduced into the tissue it cannot be withdrawn. Therefore it should be introduced with more care.

Dr. MacDonald: Stock vaccines will do good in a class of cases where the infection is well walled off. Results depend directly on the diagnosis and good judgment in application. Boils, carbuncles, localized tonsillitis, etc., offer a good field of application.

What are we going to do in the arthritides where it is as a rule impossible to isolate the offending organism? In these cases we resort to the stock vaccine and get results. You say, and I admit, that it is unscientific, but if it will help the patient, and it often will help, I say use it.

Dr. Tomlin: In sinus affections vaccines are only of benefit as adjuvants to surgical treatment. They will do no good unless free drainage of the infected area is established. Autogenous is preferable to the stock when it can be secured.

Dr. Jaeger: It is the result that we want. Stock vaccines give good results as a rule and as long as they do give results we should not cast them aside.

Dr. Dodds: We must use the identical toxin to get results. Shall we find out what that toxin is in each case or shall we guess at it? The phylacogen spoken of here to-night is a bacterial soup pure and simple and it is dangerous to fool with. It is an unknown quantity, an unscientific collection of many kinds of bacteria, and to my mind is wholly unsatisfactory. There may be resulting from its administration, for instance, a toxic myocarditis of very serious nature.

Dr. A. Henry: Autogenous vaccine is the logical vaccine.

At this point the meeting was adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of Oct. 21, 1913

Meeting opened by Dr. Ferguson. Number present, 106. Minutes of the preceding meeting read and adopted. Dr. Orvall Smiley was elected to membership in society.

A letter from the local agent of the Pennsylvania Railroad Company, with reference to special accommodations for local physicians to the Chicago meeting of the Clinical Congress of Surgeons. No action was taken.

The program of the evening consisted of a symposium on typhoid fever: F. O. Dorsey, diagnosis; J. L. Freeland, management; T. E. Courtney, who was to have discussed complications, was not present and his place was filled extemporaneously by F. B. Wynn; S. E. Earp, convalescence and sequelae.

Dr. Dorsey: There is little new in the diagnosis of typhoid. The typical case is easy, the atypical difficult, of diagnosis. Diagnosis is usually made by elimination. Dr. Dorsey mentioned time of year, age, occupation, as it throws large bodies of people together, visitors returning home, characteristic prodromes, temperature, pulse-rate, general apathy, enlarged spleen, rose spots, etc. These are only of value when they occur together. Rose spots when present characteristic. Diagnosis of the atypical case is often not made until autopsy. Bacteriological examination of stools, blood, rose spots or urine after third week may show bacillus. Widal most practical test at present and is reliable when supported by symptomatology. It is sometimes late of appearance.

Dr. Freeland: Management wholly symptomatic. No one routine treatment applicable. Rest in a clean and comfortable bed. Water not when patient asks for it, but forced in large quantities. Bath water started at temp. 95 and gradually allowed to cool if necessary to lower temperature. Other members of the family should be vaccinated if they have been associated with the patient.

Dr. Wynn: Complications in typhoid are plenty and perplexing. Simple constipation a light complication. Phlebitis often encountered. Involvement of lymphoid tissue in the upper respiratory tract with possible suppuration. Bronchitis of a simple nature often early. It may continue and become bronchopneumonia. Later may have hypostatic pneumonia. Two conditions due to prolonged intoxication: 1. Degeneration of the parenchymatous structures, for example, the kidney cells, and of the muscular structures, for example, a heart that becomes gradually more rapid late in the disease and crosses the temperature line. 2. Condition of the nervous system, which is serious and often extended over a very long period. Liberal diet should be used to prevent these conditions.

Dr. Earp: Fatal cases of typhoid due to perforation, hemorrhage or toxemia. Convalescence when accepted travels a course provided for it by treatment during active condition. Liberal diet better. Starvation diet more often followed by slow convalescence. Anemia frequent sequelae. Myocardium and entire circulatory system far below par. Myocardial murmur not infrequent. Patient should not be allowed to go about as he pleases for at least three weeks after the commencement of convalescence.

DISCUSSION

Dr. Abbett: Acute miliary tuberculosis closely resembles typhoid. Diagnosis made only after studying the case. Many things can be done to prove diag-

nosis and limit it to typhoid. Widal, bacteriological study with microscope and Petri plate cultures show characteristically.

Dr. Kelly: Drug treatment of little value. With some patients the liberal diet is difficult of application because patient often refuses to eat. Starvation diet with plenty of water for the first week, is better as a rule. Bath treatment of less value in children because of incident excitement. Enemata better for bowel cleansing.

Dr. Burekhardt: Reported case in which anti-typhoid vaccination seemed to precipitate a recurrence of a former typhoid. Port of entrance nasopharyngeal space with intestinal lesion secondary. Naturally then sequelae occur in nasopharynx, antrums and ear. Opposed to free use of calomel. Typhoid should be so treated that patient is better after than before the disease.

Dr. Kiser: We are apt to relax our vigilance with the convalescent. Greater care is needed after nurse is dismissed. Patient too often simply left alone. Severity of typhoid should not be considered in management of convalescence as the mild case is just as apt to give trouble as the severe one. Watch excretions until they are bacteriologically free before dismissing them.

Dr. Jacobs: Reported case in which temperature dropped suddenly from 104.8 to 94 with nothing to account for it but administration of 10 grains of aspirin.

Dr. Noble: We have had this evening the drama and melodrama of typhoid, but the tragedy has not been touched. Perforation is tragedy of typhoid. Occur in 3 per cent. of all typhoid. Unoperated, all perforations die. Disturbance of temperature and pulse curve. Direct examination of greased abdomen for focal tenderness. A competent surgeon should examine the abdomen frequently. Rigidity caused by perforation may pass within an hour, leaving the abdominal wall flaccid. Focal tenderness on greased abdomen most diagnostic. Time for operation is immediately.

Dr. Payne: Put nothing inside of intestinal canal that will in any way irritate. Believes in a restricted liberal diet. Plenty of buttermilk will bring about a more favorable recovery.

Dr. Kimberlin: Abdomen should be examined every day that difference caused by perforation may be more readily recognized. Learn condition of the heart early and if it is doing its work leave it alone. The late heart manifestations require careful treatment. Feed liberally. Cream suspended in buttermilk to increase calories. Liberal diet saves many cases of latent T. B. from being fired up.

Dr. Brayton: Typhoid is too frequent among doctors. More prevention is necessary. United States Army records show value of forced vaccination.

Dr. Hadley: Reported case of direct transfusion of blood in hemorrhage. Explained technique.

Dr. Shimer: In ten years we hope to see typhoid a medical curiosity. The atypical case that goes undiagnosed is the one that spreads the infection. Milk is responsible for more typhoid than water. Typhoid vaccination is most important and is efficacious. There should be universal vaccination for typhoid as for small-pox.

Dr. Beckman: There is a possibility that vaccination for typhoid during pregnancy will cause an abortion.

Dr. Erdman: Mentioned possibility of stirring up latent disease by typhoid vaccination.

Dr. J. A. Pfaff: Cited recent report that late death in typhoid due to absorption of fatty acids liberated as fat is taken up by tissues.

Adjourned.

A. E. GUEDEL, Secretary.

ELEVENTH DISTRICT MEDICAL SOCIETY

The thirteenth annual meeting of the Eleventh District Medical Society was held at Peru, October 16, with eighty doctors in attendance. The principal addresses were by Drs. A. C. Kimberlin, Indianapolis; A. M. Cole, Indianapolis; Clifford G. Grulee, Chicago. At the banquet Dr. E. H. Griswold of Peru acted as toastmaster and responses were given by Drs. A. A. Hamilton, Marion; A. J. Chittick, Burlington; C. S. Black, Warren; L. E. Jewett, Wabash, and G. D. Miller, Logansport.

The new officers elected are: Dr. G. R. Daniels, Marion, president, and Dr. J. L. Gilbert, Logansport, secretary-treasurer.

Adjourned.

J. L. GILBERT, Secretary.

TWELFTH DISTRICT MEDICAL SOCIETY

The fall session of the Twelfth District Medical Association was held at Ft. Wayne, October 5. A clinic was held at Hope Hospital at 9:30 a. m., conducted by Drs. Porter, Duemling and Rosenthal, all of Ft. Wayne. At the afternoon session the following papers were presented: "Surgery, Treatment and Pathology of Infections of the Urogenital Organs," Dr. Charles E. Barnett, Ft. Wayne; "A New Method of Testing the Functional Capacity of the Kidneys by Forced Elimination of Preformed Urea," Dr. G. W. McCaskey, Ft. Wayne; "The General Practitioner and the Specialist," Dr. F. G. Grisier; "Conservatism in Operations for Acute Inflammatory Pelvic Diseases," Dr. B. VanSweringen.

Dr. E. E. Morgan, Ft. Wayne, was elected to succeed Dr. B. VanSweringen, Ft. Wayne, as conciliator of the Twelfth District.

Adjourned.

LYMAN T. RAWLES, Secretary.

UNION DISTRICT MEDICAL SOCIETY

The 90th semi-annual meeting of the Union District Medical Society met at "The Retreat," Oxford, Ohio, October 23. Papers were read by Drs. Frank L. Ratterman, Cincinnati; Garrett Pigman, Liberty, Ind.; H. D. Hinckley, Oxford, Ohio; H. R. Alburger, Indianapolis, and Merrill Rickets, Cincinnati. A banquet was served at the noon hour by Dr. Warren Cook. Dr. D. W. Stevenson of Richmond, Ind., was elected president for the ensuing year, and Dr. W. A. Thompson of Liberty, Ind., secretary. The next meeting will be held at Hamilton, Ohio, the fourth Thursday in April, 1914.

Adjourned.

DR. W. A. THOMPSON, Secretary.

DELAWARE COUNTY

An enthusiastic group of Delaware County physicians met at the office of Dr. A. E. Vinton, at Muncie, on Monday evening, October 20, for the purpose of learning something about the pituitary body. The first part of the evening was devoted to a quiz on anatomy and physiology of pituitary gland, conducted

by Dr. H. S. Bowles, who quoted Sajous as authority. The research necessary to prepare for this quiz disclosed how little was really known or published regarding the pituitary gland or hypophysis until within the last few years.

After the quiz Dr. W. C. Stephens read a paper entitled "Constitutional Conditions Referable to Diseases of the Pituitary Gland," frequently citing Cushing in proof or confirmation of views taken. Dr. Stephens said, in part, that the pituitary gland received its name in 1553 from a mistaken idea that it was the source of the nasal mucus. In 1889 a tumor of the pituitary gland was first associated with acromegaly. In 1900-1 Babinski and Frohlich attributed adiposity and sexual infantilism to lesions of this structure. Using the thyroid gland as a "control" we may discover overactivity (hyperpituitarism) and underactivity (hypopituitarism) and also a transition stage which is termed dyspituitarism. This stage Cushing has divided into five clinical groups: (1) Cases showing glandular activity only; (2) neighborhood manifestations pronounced, but glandular symptoms inconspicuous; (3) those showing symptoms embraced in both 1 and 2; (4) cases in which obvious distant cerebral lesions are accompanied by indications of secondary pituitary involvement, and (5) those with a polyglandular syndrome in which functional disturbance on the part of the hypophysis is merely one feature of the involvement.

Factors having a bearing on diseased conditions are heredity, congenital defects and traumatism. Family traits manifest themselves in gigantism, adiposity, etc. It is asserted that 15% of intracranial tumors are associated with trauma. At puberty the rapid increase in stature is probably due to hyperplasia of the hypophysis. In pregnancy there are hypertrophic changes of the gland. In certain cases of tuberculosis, typhoid and pneumonia are found indications of hypertrophy of the gland. When the gland is the seat of hyperplasia or tumor the subjective discomfort of patient is marked by bi-temporal headache, photophobia and visual disturbances. Atrophy of optic nerve is primary, and choking of disk is a late result of pressure phenomena. Loss of sense of smell may be complete in advanced cases. Epilepsy seizures with gustatory or olfactory aura are common, as is also epistaxis. Among glandular manifestations we find skeletal overgrowth, which, occurring before puberty, produces a somewhat symmetrical gigantism. If stimulation of the gland occurs after ossification of epiphysis, acromegalic symptoms (regional enlargements) are produced. Cushing explains it in these words: "The disease is the expression of a functional instability of the part anterior, doubtless brought about by some biochemical disturbance which leads to the elaboration of a perverted or exaggerated secretion containing a hormone that accelerates skeletal growth. Epiphyseal ossification may occur during a period of quiescence in the disorder. A recrudescence will then tend to superimpose acromegalic symptoms on primary gigantism." Dwarfs are usually well proportioned, with delicacy of hands and feet; skin smooth and transparent, notably free from moisture; bodily hair sparse. The opposite is true in hypersecretion: subcutaneous tissue is thick and boggy, papillae enlarged, secretory glands overactive; moist, greasy skin. Excessive subcutaneous fat is attributed to a posterior lobe insufficiency, these patients assimilating abnormal

quantities of sugar and carbohydrates. Many suffer from cold and actually show a subnormal temperature and a low blood-pressure. Drowsiness and torpidity simulating hibernation in animals is sometimes seen. Study of the polyglandular syndrome seems to prove that there is a closer relationship between the hypophysis and the testes or ovaries than with any other ductless glands, although it is well established that there is some connection between the pituitary and thyroid glands, the same biochemical factor causing a hyperplasia of both structures. There is clinical evidence that in cases of primary hypopituitarism there is apt to be a persistent enlargement of the thymus, when the malady precedes puberty.

Adjourned

H. D. FAIR, Secretary.

DUBOIS COUNTY

The Dubois County Medical Society met at Jasper, Ind., October 21, with twenty physicians present.

Dr. August Schaener of Louisville, Ky., presented the paper of the day, his subject being "Inguinal Hernia and Ductless Glands." The essayist emphasized the importance of recognizing the peritoneal fossa as a factor in the production of hernia, and their obliteration in the operation for the relief of hernia. A better name for the inguinal canal would be inguinal chink, and in the cure of hernia by operation, the two basic features that must be maintained are the obliteration of the sac and any remaining concavity on the peritoneal side that would favor the return of the hernia, and the careful suturing of the arch border of the internal oblique and transversalis muscles which represent the roof of the chink to Poupart's ligament, which is the floor of the chink or canal. On the subject of ductless glands the essayist emphasized the importance of a knowledge of the entire chain of ductless glands. He pointed out that when this knowledge is complete, which completion means much additional labor, its influence will vie with that of the complete knowledge of vaccine and serum therapy, and the two combined will bear to internal medicine the same important relation as did the labor of Pasteur and Lister bear to surgery. Just as modern surgery dated from the recognition of organisms, so will modern medicine date from the full development of our knowledge of the ductless glands and vaccine therapy. The importance lies in our ability to recognize the cases of insufficient or excessive gland, more especially insufficient in the young and excessive in the full grown. The first will mean the development of a normal individual and the second will mean the prevention of the destructive action that attends the excess of any of these glandular secretions.

Dr. Jos. D. Heitger of Bedford, counselor of the Third District, was present and in a short address complimented the society as a live one as regards attendance, interest shown, work of society, good-fellowship, etc.

A vote of thanks was extended Dr. Schaener for the instructive discussion of his subject.

The members of the society congratulated Dr. J. P. Salb of Jasper on his election as president of the Indiana State Medical Association.

The next meeting is to be held at Huntingburg, on the third Tuesday in November, program to be announced on invitation notices.

Adjourned.

EUGENE A. STURM, Secretary.

ELKHART COUNTY

Meeting of October 9, 1913

The annual Nappanee meeting was called to order by President Kuhn at 2:30 p. m., Oct. 9, 1913. The session was held at the Nappanee Club and was followed by a dinner at the Coppes Hotel. Minutes of September meeting read and approved.

Motion carried that secretary be instructed to cast ballot of society for Drs. L. A. Elliott, P. B. Work and G. N. Druley, as new members. Application of Dr. J. O. Walter, Bristol, was referred to board of censors.

In the absence of Dr. Spohn, delegate, the secretary reported on the transactions of the West Baden session.

Clerical and printing bills amounting to \$9.34 were allowed as listed.

"The Etiology and Differential Diagnosis of Chronic Parenchymatous and Interstitial Nephritis," was presented in a paper by Dr. J. S. Slabaugh, Nappanee. The author said that Richard Bright, early in the nineteenth century, described the various clinical forms of nephritis as different stages in the same morbid process. Parenchymatous and interstitial nephritis are now recognized as two distinct pathological entities.

Either form may follow the acute nephritis of any infectious disease, undue exposure to cold, alcoholism, syphilis, mercurial treatment, lead poisoning, gout, chronic constipation, and the pernicious habit of taking "liver and kidney pills."

The essayist graphically differentiated between the two forms of chronic kidney disease by the following tabulation:

| | Chronic Parenchymatous Nephritis | Chronic Interstitial Nephritis |
|----|---|--|
| 1 | Urine scanty. | Urine abundant. |
| 2 | Albumin always abundant. | Albumin, a trace and at times absent. |
| 3 | Urine dark color, high specific gravity. | Urine pale color, low spec. grav. |
| 4 | Casts abundant; waxy, granular, hyaline, and fatty. | Casts rarely found and those usually hyaline. |
| 5 | Arterial tension usually normal. | Arterial tension always high. |
| 6 | Arteriosclerosis rare. | Arteriosclerosis a constant finding. |
| 7 | Cardiac hypertrophy rare. | Cardiac hypertrophy always present in some degree. |
| 8 | Hemorrhages rare. | Hemorrhages frequent. |
| 9 | Retinitis albuminurica rare. | Often the first symptom of the disease. |
| 10 | Edema practically constant. | Edema rare. |
| 11 | Uremia occasional. | Uremia a usual complication. |
| 12 | More common in adults under 40 years of age. | More common after 40. |

Richard C. Cabot says: "I see a good many cases entirely free from albuminuria and tube casts but with high blood-pressure which are shown post-mortem to be renal disease." T. C. Janeway: "Given

a high systolic pressure, over 200 m.m., the diagnosis of contracted kidney must be disproved by repeated examinations before it is abandoned." The essayist cited cases in his own experience which emphasized the great importance of an accurate determination of blood pressure. Headaches, persistent and periodical, in a patient call for thorough examination of blood pressure, of the fundus oculi and urine. The functional tests as enumerated and described by McCaskey should be used where practicable.

"Pathology and Treatment of Nephritis" was the subject of a paper by E. M. Hoover, M.D., Elkhart. Hypertension and heart hypertrophy occur in those cases of renal disease which are prone to develop uremia. Suggests that the cause of each of these three conditions is identical. A poison which has not been isolated and described is responsible, first, for the changes in the vascular system and second, for the kidney lesions of chronic nephritis. Hypertension develops very early in the acute glomerular nephritis of scarlet fever. Loeb notes the fact that hypertension does not occur in parenchymatous nephritis. Another view is that hypertension is a curative agency which brings out the maximum functional capacity of the kidneys. Glomerular lesions limit the local vasodilatation. Glomerular activity increases only with increased blood supply. To maintain a compensatory activity of the kidneys there must be increased blood supply and this is brought about by a general arterial hypertension. It has been suggested that the internal secretion of the adrenals causes this hypertension.

Dr. Hoover quoted Christian in discussing the pathology of albuminuria and cylindruria. "The albumin in the urine comes from soluble proteids of blood and appears in urine as a result of pathologically increased permeability of glomerular tufts. Degeneration of epithelial cells of tubules may have a small part in producing condition." Hyaline casts are derived from albumin excreted by glomeruli, while granular casts are derived from tubular epithelium. Granular casts are formed quickly and excreted early, while hyaline casts are formed slowly and excreted late.

Much experimental evidence is against the theory of salt retention as the cause of edema. Pearce names three factors essential in causation of renal edema: (1) nephritis, (2) vascular injury, and (3) an abnormal increase in body fluids.

Treatment. Condition of kidneys should be watched in all acute infectious diseases and during pregnancy. Chemical poisons and exposure to damp cold should be avoided. The essayist believes that strict milk diet and proscription of salt in diet are no longer necessary or scientifically correct. Van Noorden showed that if sufficient nutriment is supplied by a milk diet, an excess of protein must be given. The nephritic's diet must be low in protein, inasmuch as power of kidney to eliminate nitrogenous products is greatly impaired. The value of salt-free diet consists in protecting kidneys by minimizing their labor.

Uremia is considered to be complex toxemia, in which absorption of toxic products from intestinal tract plays an important part. Lactic acid bacilli therapy is recommended as intestinal antiseptic instead of mercurials, cantharides or phenols, which are renal irritants. Preble advises elimination of waste products through other organs than kidneys. He recommends venesection in uremia as most valuable treatment. The withdrawal of one liter of blood removes more

toxins from system than is removed in 275 liters of the products of purgation or in 600 liters of perspiration.

The author quoted Fischer's theory: "All the changes that characterize nephritis are due to a common cause—the abnormal production or the accumulation of acids in the cells of the kidneys." All the pathological changes in nephritis Fischer ascribes to this acid intoxication. His treatment, therefore, consists in giving alkalies, salts and water by mouth, per rectum or intravenously.

DISCUSSION

Dr. I. J. Becknell, Goshen: Discussed development of large white kidney, chronic parenchymatous nephritis from acute tubal desquamative form. Symptoms of chronic form are dropsy, anemia, dyspnea, gastrointestinal disturbances; scanty, high-colored urine with abnormally small urea content and a large amount of albumin, with fatty, hyaline or waxy casts.

Granular, contracted, atrophic or gouty kidney characterizes chronic diffuse or interstitial nephritis. Secondary to acute nephritis; may result from gout, lead poisoning or use of alcohol. Complications of chronic nephritis: Edema of the glottis and lungs, hemorrhage from bowels or stomach, retinitis with gradual loss of sight, and uremic poisoning. Dr. Becknell in the acute form uses counterirritants or cups to lumbar region, diaphoretics (hot baths or pilocarpine) and free purgation with saline cathartics. He discussed general measures in treatment of chronic nephritis and advised use of nitrites, iodides, hot pack, vapor bath or venesection to reduce high arterial pressure. There must be free elimination from bowels, skin, lungs and kidneys.

Dr. M. K. Kreider, Goshen: Believes in treating nephritis without drugs with the sole exception of the eliminants. The sympathetic nervous system must be treated and nerve force increased. This may be done by dilating rectum.

Dr. C. W. Haywood, Elkhart: The effect of food intake on the activity of the kidney varies in that degree that the food is varied. That meat diet does not predispose to Bright's disease is disproved by the dietary of the Esquimaux, who are noted as meat eaters and for their immunity to nephritis. Arguments of Von Noorden show fallacy of milk diet.

Thus if the individual is unable to excrete the normal amount, his kidneys are greatly overworked—the very condition to be obviated. Use of Von Noorden's diet tables is commended to keep down excessive work placed on kidneys. The arguments for and against the giving of large quantities of water in nephritis are still highly theoretical.

Dr. B. F. Teters, Middlebury: Clinical teaching, close observation of routine cases, shows that interstitial nephritis results from the parenchymatous form.

Dr. W. B. Kreider, Goshen: Oblong white plaques and hemorrhages in retina are pathognomonic of Bright's disease. General practitioners should be more familiar with use of ophthalmoscope.

Dr. P. B. Work, Elkhart: Percy observed that nephritis never occurred in exophthalmic goiter; that the thyroid is enlarged in pregnant women, and assumes that there is frequently thyroid insufficiency in nephritis. At one time he reported thirty-five cases

which he treated with thyroid gland substance. He administered large doses of thyroid gland substance to cases of typical interstitial nephritis and of threatened eclampsia and effected cures in cases after he had treated them for years with glonoin and nitrites. He cited cases of albuminuria retinitis which were absolutely cured. Percy bases his treatment on the relations of internal secretions to renal function. He explains the failure of other observers to get results to be their use of too small doses. Only large doses give results.

Dr. G. W. Kirby, Goshen: Some three years ago Dr. Percy treated Dr. Kirby's wife's mother, who suffered from Bright's disease. Since that time she has been comfortable. Dr. Kirby has used large doses in two cases and has obtained very good results. It is not possible to cure all cases, but they may be symptomatically relieved and their life prolonged.

Dr. A. C. Yoder, Goshen: We are in transitional stage with regard to the facts concerning nephritis. Regrets that clinical findings have not always been in accord with autopsy findings. Later investigators are in way of determining functional ability of a kidney. A kidney may have a disturbance of function in excreting one extractive and normal function in excreting others. Investigators have discovered that cantharides always produces the same kidney lesion, and that HgCl_2 gives a typical nephritis. Three types of nephritis may be distinguished: (1) glomerular nephritis, such as cantharides produces, in which there is faulty elimination of lactose. This is a vascular nephritis and makes up 30 to 40 per cent. of all kidney diseases; (2) tubular nephritis such as is produced experimentally by HgCl_2 . In this form there is faulty elimination of KI and NaCl. This constitutes 4 per cent. of all cases; (3) kidney condition in which there is tendency to uremia. Urea is not excreted in normal limit of time. This form makes up 4 per cent. of all cases. There is 30 to 40 per cent. of all cases in which there are two or three types existing simultaneously. In the first or vascular form treatment consists in limiting fluids and salt diet liberal, meats not interdicted. They are perfectly eliminated. The treatment of the tubular form is to limit fluids because of tendency to edema. The edema of this form of nephritis is one that occurs in loose connective tissue, eyelids or penis, and does not follow gravity. The normal man excretes 7 gm. of sodium chloride per diem. If, due to kidney disease, he can only excrete 4 gm. a day and if he still takes 7 gm., NaCl must accumulate in the system. Osmosis and resulting edema. No edema if salt in dietary is kept down to 4 gm.

An edematous patient with nephritis and edema, sweating is indicated. An edematous patient and uremic nephritis, sweating is contra-indicated, because of concentration of toxins. Venesection is logical procedure. The particular form of nephritis must be determined before treatment is instituted. The old methods of treating kidney disease and backache out of the same bottle of buchu and juniper must be discarded.

Dr. D. L. Miller, Goshen: Believes parenchymatous and interstitial nephritis are different stages in same disease. Must compensate loss of albumin by sufficient diet. There is danger, however, in overfeeding and in faulty elimination from bowels.

Dr. J. C. Fleming, Elkhart: Warns against fallacy of only one or two urine examinations. Thinks 30 or 40 per cent. of all cases of nephritis show no urinary pathology. Should have cases examined by eye men. Rarely an arteriosclerosis without a nephritis. Emphasizes importance of putting patient to bed from one to three weeks. Temperate life regarding work, diet amount of fluids ingested and stimulants.

Dr. H. K. Lemon, Goshen: We do not know how to treat nephritis. Homeopaths are taught that cantharides or HgCl_2 produce kidney lesions, and these are given in high dilutions as remedies. The orificial surgeon dilates the rectum, etc. We must individualize the treatment of nephritis.

Dr. J. A. Work, Jr., Elkhart: Colorimetric tests of renal functional capacity are not now held to be infallible reactions as claimed by their early sponsors. Quantitative urea computation is more reliable inasmuch as urea is a normal extractive, while coloring matters are foreign to renal epithelium.

Dr. B. F. Kuhn, Elkhart: Dr. McCaskey believes in colorimetric tests. Sulphon-phenolphthaleum test is reliable. Dr. Kuhn described a simpler and less costly apparatus than that of Geraghty and Rowntree.

Dr. J. S. Slabangh, closing: One fact is definite—present knowledge of kidney disease is indefinite. If parenchymatous is a stage of interstitial nephritis, then the former rarely becomes apparent or is not diagnosed. A few cases give no history whatever of previous disease. Always test urine and take blood-pressure. Note history of headache. A marked difference between diastolic and systolic blood-pressure indicates high arterial pressure.

Dr. E. M. Hoover, closing: Dr. Yoder illustrated proper method of studying the kidney. Cited fatal case of woman who took $7\frac{1}{2}$ -grain tablet of HgCl_2 . Tried to get water into her system but was unsuccessful. Persistent vomiting and pudging till death. Case characterized by nephritis, hydraemia and vascular lesions.

Adjourned. JAMES A. WORK, JR., Secretary.

HENDRICKS COUNTY

The regular meeting of the Hendricks County Medical Society was held at Danville, October 24, with twenty members present. The annual election of officers was the first business and resulted as follows: Dr. W. H. Terrell, Pittsboro, president; Dr. S. D. Jones, Clayton, vice-president; Dr. W. T. Lawson, Danville, secretary-treasurer.

A committee on a uniform fee bill was appointed.

Following the business session, Dr. Luther Williams of Indianapolis presented a paper on "Ulcers of the Stomach and Duodenum and Their Early Treatment." Discussion was lead by Drs. Armstrong, White and Terrell. Dr. Orvall Smiley of Indianapolis read a paper on "Vaccine Therapy."

Adjourned. W. T. LAWSON, Secretary.

LAKE COUNTY

The regular meeting of the Lake County Medical Society was held in the Hammond Chamber of Commerce, October 9, Dr. Weis presiding, and with nineteen members present. The minutes of the September meeting were read and approved.

Dr. F. H. Fox read a paper on "Some Observations on Thyroid Therapy." The physical action of thyroid extract, as stated by Sajous, is (1) it increases the sensitiveness of all living cells, including those composing the test organ; (2) to sustain, by direct stimulation, the functional activity of the test organ as adrenal centers.

The essayist finds thyroid of value in the treatment of tetany, epilepsy, puerperal eclampsia, disorders of the menopause, asthma, rheumatic arthritis, etc. It is also of value in cases of delayed union of fractures. In treatment of amenorrhea, particularly at puberty, he has found thyroid extract of great value. Thyroids should not be given continuously or for any great period, the author's method being to give the extract for one week in each month. In pregnancy the thyroid gland is usually enlarged in response to a call for more thyroid secretion. In case the gland does not respond, we have nausea, dizziness, etc., all of which clear up under treatment with thyroids. He has seen two cases of overdosage; one patient had fallen while at work, remaining unconscious for ten minutes.

DISCUSSION

Dr. Gibbs: Urges study and especial care in these cases. Many obesity cures depend on thyroid extract for their efficiency, and it is well to be on the lookout for overdosage in these cases. Cites case of physician with peculiar facies. No diagnosis made after examination by several doctors. Careful examination showed almost total absence of thyroid gland. Thyroid given with marked effect. May sometimes have an enlarged thyroid, though an inactive one.

Dr. Campbell: Boy, aged 10, pulse 120. Severe headache. Gland very large. Three weeks' treatment with thyroids caused all symptoms to disappear.

Dr. Oberlin: The virtues of thyroid therapy are too often overlooked and this paper opens up a new line of treatment in many cases. Suggests the use of thyroids in dysmenorrhea. Has used thyroids recently in a case of delayed union with highly pleasing results.

Dr. Scull: Used thyroids several years ago in dysmenorrhea; results not satisfactory. Cited remarkable results in cretin, aged 2½ years.

Dr. Evans: Use of thyroid extract in certain obese women is of great value. In treatment of hyperthyroidism uses fluid extract belladonna to physiologic effect. Cites case which he gave twenty minims each hour for about three weeks without reaching physiological effect. This is the first failure in these cases in several years.

Dr. Young: Has used thyroids in high blood-pressure with persistent headache.

Dr. White: Cites cases of carcinoma of uterus inoperable, in which he believes life was prolonged for two months by use of thyroids.

Dr. R. O. Obstrowski: Advocates thyroids in abnormal menstrual conditions. Uses iron in conjunction.

Dr. Mellon: Lymphangitis frequently associated with these cases. Thyroid therapy of to-day is rank empiricism.

Dr. Fox: In closing, believes thyroids of value in dysmenorrhea, and suggests Dr. Scull's failure in these cases was due to inert thyroids. Suggests the addition of iodine.

Adjourned.

E. M. SHANKLIN, Secretary.

MADISON COUNTY

The Madison County Medical Society met in regular session in the Public Library in Anderson, October 28, with sixteen members present. The president and vice-president being absent, Dr. C. P. Runyan of Elwood filled the chair. Minutes of previous meeting read and approved. Dr. F. F. Mendenhall, delegate to the state meeting, gave a report of the meeting, after which Dr. T. M. Jones read a paper on "Hypernephroma of the Kidney." Dr. Jones reported a case the history of which covered a period of seven years; extirpation relieved all symptoms for three months, when the pain returned, the patient dying eight months after the operation with well developed metastasis in the pelvic bone. Discussion by all members present.

Adjourned.

ETTA CHARLES, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 N. Dearborn Street, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

GLUTEN FOOD A, BARKER'S.—A wheat-gluten flour, containing not more than 4 per cent. of carbohydrates and 87 per cent. protein.

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Barker's gluten foods are indicated when a practically starch-free diet is desired, particularly in most forms of diabetes. It can be taken uncooked or made into muffins. Herman Barker, Somerville, Mass. (*Jour. A. M. A.*, Sept. 27, 1913, p. 1042).

ACNE BACTERIN POLYVALENT.—For description of Acne Vaccine see N. N. R., 1913, p. 211. Abbott Alkaloidal Co., Chicago.

COLI-BACTERIN POLYVALENT.—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Abbott Alkaloidal Co., Chicago.

FRIEDLANDER-BACTERIN POLYVALENT.—For description of Friedlander Vaccine see N. N. R., 1913, p. 222. Abbott Alkaloidal Co., Chicago.

GONOCOCCUS-BACTERIN POLYVALENT.—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Abbott Alkaloidal Co., Chicago.

PNEUMO-BACTERIN POLYVALENT.—For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Abbott Alkaloidal Co., Chicago.

STAPHYLO-ACNE-BACTERIN POLYVALENT.—For description of mixed vaccines see N. N. R., 1913, p. 224. Abbott Alkaloidal Co., Chicago.

STAPHYLO-ALBUS-BACTERIN POLYVALENT.—Abbott Alkaloidal Co., Chicago.

STAPHYLO-AUREUS-BACTERIN POLYVALENT.—Abbott Alkaloidal Co., Chicago.

STAPHYLO-BACTERINS (HUMAN) ALBUS-AUREUS-CITREUS.—For description of Staphylococcus Vaccines see N. N. R., 1913, p. 225. Abbott Alkaloidal Co., Chicago.

STREPTO-BACTERINS (HUMAN).—For description of Streptococcus Vaccines see N. N. R., 1913, p. 226. Abbott Alkaloidal Co., Chicago.

TYPHO-BACTERIN POLYVALENT.—Abbott Alkaloidal Co., Chicago.

TYPHOID PROPHYLACTIC.—For description of Typhoid Vaccine see N. N. R., 1913, p. 227. Abbott Alkaloidal Co., Chicago. (*Jour. A. M. A.*, Oct. 4, 1913, p. 1297).

NINHYDRIN.—Ninhydrin is triketohydrindenhydrate a derivative of inden. Colorless crystals, readily soluble in water. The aqueous solution gives a blue color on boiling with protein bodies, or amino-acids derived from them, which have the amino group in the alpha position. Ninhydrin is used in the diagnosis of pregnancy according to the method of Abderhalden. Farbwerke-Hoechst Co., New York (*Jour. A. M. A.*, Oct. 11, 1913, p. 1377).

PLACENTAPEPTON.—A peptone derived from the placenta. It is used in applying the optical test for pregnancy according to Abderhalden. Farbwerke-Hoechst Co., New York (*Jour. A. M. A.*, Oct. 11, 1913, p. 1377).

ANTIRABIC VACCINE.—It is prepared according to the method of Pasteur and is a complete treatment, consisting of 25 doses, to be administered during 21 days. Schieffelin & Co., New York (*Jour. A. M. A.*, Oct. 11, 1913, p. 1377).

COPPER CITRATE, MERCK.—This salt complies with the standards for copper citrate, N. N. R., Merck & Co., New York (*Jour. A. M. A.*, Oct. 11, 1913, p. 1377).

TRANSFER OF AGENCY.—The biologic products of the Sophian-Hall-Alexander Laboratories which were accepted for inclusion with N. N. R. are now sold by E. R. Squibb & Sons (*Jour. A. M. A.*, Oct. 11, 1913, p. 1377).

REFORM IN MEDICINES

THE TRUTH ABOUT OZONE.—Manufacturers of ozone machines have vaunted ozone as a valuable remedy in many diseases, as an effective room disinfectant, as a "purifier of the air" and a restorer of exhausted human vitality. How misleading and even mischievous such claims are is shown by an investigation and discussion of the ozone question by Jordan and Carlson (*Jour. A. M. A.*, Sept. 27, 1913, p. 1007). Ozone is a toxic gas. So far as the evidence is concerned, ozone produces no reaction in the human organism or in the lower animals that can be regarded as in any degree beneficial either in combating or warding off infectious diseases. On the contrary, all visible physiologic changes produced by the inhalation of ozone are distinctly of an injurious and weakening character. The claims made for ozone as a practical room ventilator are farcical if they were not altogether deplorable. Ozone is of no practical importance as a means of destroying bacteria. The experiments of Jordan and

Carlson have been confirmed by the work of Sawyer, Beekwith and Skolfield (*Jour. A. M. A.*, Sept. 27, 1913, p. 1013), who conclude that the use of ozone machines in public buildings should be prohibited by health authorities. The investigations again prove how necessary it is to consider with critical doubt the claims of those who have for sale something of asserted prophylactic or therapeutic value (*Jour. A. M. A.*, Sept. 27, 1913, p. 1045).

FRIEDMANN VACCINE.—The report of Dr. Barnes of the Rhode Island State Sanatorium for Tuberculosis adds to the evidence that the treatment with the Friedmann vaccine has no advantage over other methods of treating tuberculosis and that, in all probability, it is a dangerous one. In view of the fact that it seems impossible to find a single favorable report, the time has come for an end to the hope that in the Friedmann vaccine there is a cure for tuberculosis. In view of the commercial exploitation of the treatment by means of "Friedmann Institutes" it is necessary that the public be acquainted with the dangers and worthlessness of the treatment (*Jour. A. M. A.*, Sept. 27, 1913, p. 1050).

SINKINA.—A report of the Council on Pharmacy and Chemistry states that Sinkina, a new "malaria specific," sold by the Metropolitan Pharmacal Company, New York, from the available evidence appeared to be simply a dilute sugar-alcohol-water solution, containing a little oil of cumin (Roman caraway). At first rejected by the Council because the evidence was held not to substantiate the claims, it was later submitted to clinical trial because of extensive advertising. For the clinical trials, Sinkina and a cumin oil preparation made in the A. M. A. Chemical Laboratory were used. The trials, made by physicians actively engaged in the study of malaria, demonstrated that the preparation was without action on the malarial plasmodium and that its action could not be distinguished from the cumin oil preparations (*Jour. A. M. A.*, Sept. 27, 1913, p. 1056).

FEMALE WEAKNESS CURES.—Among the victims to quackery of every sort women far outnumber men. They are always more trustful, and, as a rule, find it more difficult, especially when suffering, to believe that any one can be base enough to abuse their confidence, much less to take advantage of their helplessness in order to plunder and injure them. Some concerns engaged in selling medicines to women are: Kokomo Medicine Company (Mrs. Ida M. Wade), Kokomo, Ind.; Mrs. Georgia Palmer, Chicago; Atlanta Remedy Company (Dr. Lily M. Norrell), Atlanta, Ga.; Mrs. F. Beard Company, Dayton, Ohio; Dr. Charlotte Christopher, Chicago; Hager Medical Company, South Bend, Ind.; Margaret M. Livingston, M.D., Chicago; J. A. McGill, M.D., Chicago; Phen-ix Chemical Company, Warsaw, Ind.; Woman's Mutual Benefit Company (Mrs. Harriet M. Richards), Joliet, Ill.; Sanova Company, Toledo, Ohio; Dr. Southington Remedy Company, Kansas City, Mo.; Vanderhoof & Company (Mrs. M. Summers), South Bend, Ind.; Woman's Remedy Company (Dr. Grace Feder Thompson), San Francisco, Cal.; Vis-Vitae Medicine Company, Toledo, Ohio (*Jour. A. M. A.*, Oct. 4, 1913, p. 1311).

ANUSOL SUPPOSITORIES.—A circular now sent out states: "In Hemorrhoids and all Inflammatory Rectal Diseases let your first thought continue to be Anusol Hemorrhoidal Suppositories; they have Earned your lasting Confidence." Also the medical profession is told that these suppositories have for years "maintained their world-wide reputation." The short memory of the medical profession must be known. How, otherwise, would a firm expect physicians to believe that a product had "earned" their "lasting confidence" when

the result of an examination by the A. M. A. chemists has shown that the suppositories contained practically no "anuso." Moreover, since these findings were a practical verification of the findings of a foreign chemist, it is not quite clear what is meant by the term "world-wide reputation." While formerly Anusol Suppositories were stated to contain Bismuth iodoresorcin-sulphonate (anuso), they are now stated to contain "bismuth oxydoid and resorcin sulphonate" (*Jour. A. M. A.*, Oct. 11, 1913, p. 1392).

SANATOGEN.—The promoters of Sanatogen are making capital out of the fact that a "grand prix" was awarded to Sanatogen at the Exhibition of Medical and Surgical Material held in London at the same time that the Seventeenth International Congress of Medicine was in session. Those familiar with the awarding of prizes at commercial exhibitions will attach little weight to this "honor." The commercial exhibition was entirely distinct from the scientific exhibit of the congress. It was managed and conducted by a British drug journal. Among the list of the award jury was the name of Dr. Stephen Paget, who stated that he was not on the jury and knows nothing about the matter (*Jour. A. M. A.*, Oct. 11, 1913, p. 1392).

EAU DE QUININE.—The A. M. A. Chemical Laboratory finds a specimen to have a red color and a flavor like hair oil. It contained about 66 per cent. of ethyl alcohol, but was free from wood alcohol. It also appeared devoid of appreciable quantities of glycerin or fatty oils. The examination also indicated the presence of 0.02 per cent. of quinin or cinchona alkaloids, showing that while, according to reports, the addition of quinin at one time may have been considered an unnecessary expenditure, at the present time the preparation contains a trace of quinin, just enough, perhaps, to escape prosecution under the Food and Drugs Act for being misbranded (*Jour. A. M. A.*, Oct. 18, 1913, p. 1476).

ABSORBINE, JR.—This is a liniment sold by W. F. Young, Springfield, Mass. It is inferentially sold as a cure for rheumatism, neuralgia, headache, varicocele, orchitis, toothache, corns, goiter, dandruff, "catarrh," hay-fever, pills, elephantiasis, milk leg and several other conditions. The A. M. A. Chemical Laboratory reports that Absorbine, Jr., appears to be an acetone extract of some plant, probably wormwood, with the possible addition of some oil of sassafras and menthol (*Jour. A. M. A.*, Oct. 25, 1913, p. 1562).

BOOK REVIEWS

THE EYE, EAR, NOSE AND THROAT YEAR BOOK (1913).

One of the series of ten covering the year's advances in Medicine and Surgery. Price, Cloth, \$1.50. Price of the Series of Ten Volumes, \$10. The Year Book Publishers, Chicago.

This volume of the Practical Medicine Series is supposed to give in abstract form, sometimes with comments by the editor of the Year Book, the principal articles that have appeared throughout the preceding year. As may be supposed, the volume is not an index which mentions every article on the special subjects under consideration that has appeared in American medical literature. It does, however, give a résumé of many contributions which are worthy of consideration by all progressive specialists.

Fully one-half of the present volume is devoted to the eye, and this is by far the best part of the book and shows a wider reading of current literature than is evidenced in the balance of the book, which is devoted to the ear, nose and throat. However, all of the subjects have been treated in a manner which makes the book a worthy addition to the library of the progressive specialist, and we heartily recommend it to the busy physician who has little time and less inclination to read the hundreds of articles on the eye, ear, nose and throat that appear during one year in the medical publications of this country.

A MANUAL OF OTOLGY. By Gorham Bacon, A.M., M.D., Professor of Otolgy in the College of Physicians and Surgeons, Columbia University, New York. New (Sixth) Edition, Thoroughly Revised. 12mo, 536 Pages, with 164 Engravings and 12 Plates. Cloth, \$2.25, net. Lea and Febiger, Philadelphia and New York, 1913.

The numerous editions of this work are testimony of the high appreciation which teachers and medical students have given this very practical and up-to-date Manual of Otolgy. This latest volume, representing the sixth edition, shows that many chapters have been revised and enlarged in order to present the subjects in the latest aspect. Due attention has been given to diagnosis and treatment, which are subjects of the utmost importance in a condensed text-book. For the student and general practitioner it is scarcely possible to find a work that is better fitted for their use, and many specialists will find the volume a valuable addition to their library of reference works.

Among the topics requiring revision of the text to meet present-day opinions are the following: Suppurative labyrinthitis, otosclerosis and the submucous operation. Due emphasis has been laid on the modern method of excision of the tonsils, on vaccine therapy, and on early examination of the cerebrospinal fluid in lepto-meningitis. The publisher's work has been well done, the illustrations in particular being excellent.

DISEASES OF THE EYE. By G. E. deSchweinitz, A.M., M.D., Professor of Ophthalmology of the University of Pennsylvania, Ophthalmic Surgeon to the University Hospital, Etc. With 360 Illustrations and 7 Chromo Lithographic Plates. Seventh Edition. Thoroughly Revised. 980 Pages. Cloth, \$5. W. B. Saunders Company, Philadelphia and London, 1913.

This book is so well known and bears such an enviable reputation that it scarcely needs an introduction to the medical profession. It is a comprehensive text-book for students, practitioners and specialists by a master. It is written in that clear and concise manner so characteristic of Dr. deSchweinitz' writings, and presents the latest and most authoritative information on the subjects discussed.

In the present or seventh edition various chapters have been revised or entirely rewritten in order to bring the subject matter thoroughly up to date. Many new topics appear for the first time, and an endeavor has been made to include the important discoveries and observations since the publication of the previous edition. To attempt to enumerate all of the good features of the book would necessitate comment on each and every chapter, for we find nothing missing, and the general excellence of the whole renders it impossible to single out any one feature which stands out preeminently as better than the rest.

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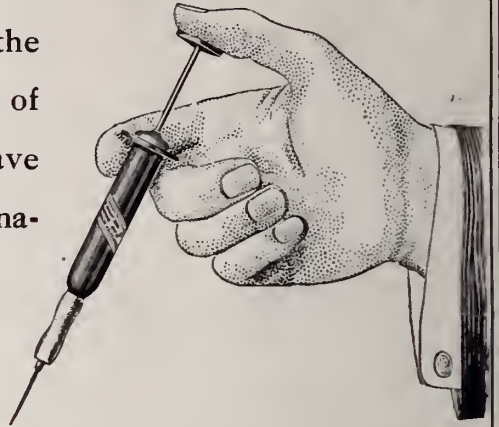
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ORIGINAL ARTICLES

SYMPTOMATOLOGY AND DIAGNOSIS OF CHRONIC BRIGHT'S DISEASE *

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The mortality from Bright's disease is about one-half that from tuberculosis—a fact which sufficiently emphasizes its great clinical importance. Its morbidity also, by reason of its notable chronicity, is excessive, and the general efficiency of the army of sufferers from Bright's disease is thus seriously impaired—often for many years. Side by side with these facts it should be remembered that, if its antecedent conditions are recognized, Bright's disease is very largely preventable, and if early recognized and rationally treated, is very largely curable, or at least controllable.

Let us endeavor to get a clear view, or at least as clear as the haziness of the atmosphere will permit, of a proper clinical conception of Bright's disease. Bright's original picture of albumin and dropsy was drawn by a pioneer with necessarily limited vision, and no longer holds good, any more than does the original notion of hysteria in its relation to uterine disease.

Indeed, the current definition of the text-books makes the term much broader, including a somewhat variable group of diffuse, non-suppurative renal diseases, sometimes limited to inflammatory lesions, which are really not at all easily defined, sometimes including along with these certain of the degenerative lesions, perhaps

always excluding amyloid disease. It is not my purpose, any more than it is my province, to enter into the tangled maze of renal pathology, and I only take the time to refer to it to enter a protest against any view which focuses attention too exclusively on the kidneys and fails to give due prominence to the wide-spread structural and functional disturbances which form a part of the clinical picture.

For practical clinical purposes, therefore, I would label as either actual or potential Bright's disease the entire series of events from the early toxic state, usually easily recognized, down to the end of the case. Just at what point in this long series of events the anatomical lesion of the kidneys begins probably varies in different cases, and is impossible of determination in any.

It is obviously hazardous to dogmatize concerning the rôle which a renal lesion, discovered after death, played in the clinical syndrome during life, unless, indeed, it is quite extensive. The recently published observations of Ophüls, e. g., who found a healthy kidney exceptional in a series of 1,000 autopsies, and of Woolley, who found only one healthy kidney in 667 autopsies, would seem to indicate that structurally intact kidneys were the exception rather than the rule, especially in the later years of life. If every case of diffuse non-suppurative renal lesion found at autopsy spelled Bright's disease, how few decedents would escape that mortuary label. Evidently something more is necessary, for Bright's disease as clinically recognized is not as frequent as the autopsy findings would indicate on such a basis. What is this something else?

Is it the attribute of progressiveness of the renal lesion that constitutes the distinctive feature of Bright's disease? Such an assumption would evidently be begging the question, for it would rest on what I believe to be the fallacy that Bright's disease is essentially progressive from its

* One of the papers of the symposium on Chronic Bright's Disease, presented before the Indiana State Medical Association, at West Baden, Sept. 25, 1913.

onset. It usually is progressive from the date of its recognition, because irreparable damage has then been done, especially to the renal and cardiovascular mechanism, but also to the nervous and glandular structure as well. There comes a time, of course, when readjustment is impossible, even under the most favorable conditions, and the disease then inevitably progresses to a fatal termination. But there is an earlier and curable stage, possibly with very slight renal change, and it is the recognition of this stage which I desire especially to emphasize.

All of the diffuse lesions of the kidneys, like the associated cardiovascular and other changes, are of hematogenous origin. Variations in vulnerability of individuals, and of embryonic segments of individuals, may explain both the incidence and type of the disease. So far as the kidneys are concerned, the lesion may be predominantly tubular or glomerular, interstitial or parenchymatous, although it is practically always diffuse, partaking of all types; while the extra-renal pathology may give us a great variety of syndromes, e. g., with or without dropsy. If we except certain cases, a small minority of the whole, apparently due to rapidly acting intoxications or infections, Bright's disease is the result of very slowly acting toxins, combined with other causes, whose influence extends over a very long period of time, producing wide-spread changes in the kidneys, cardiovascular apparatus and elsewhere. The kidneys suffer most, because it is their function to eliminate these toxins, which play the rôle of a chronic irritant to renal tissue, the progressive damage to which finally impairs its functional capacity, thus leading to greater accumulation of toxins with resulting accentuation of their morbid effects—a veritable vicious circle.

These toxins are probably of extremely diverse character and origin. They may be metabolic, a well-known example being the hyperglycemia and acidosis of diabetes, in which the filtration through the kidneys leads to structural change; they may be of gastro-intestinal origin, in the nature of either excessive bacterial action or excessive food products; they may be the result directly or indirectly of perversions of internal secretions, as in Graves' disease, or multiform functional disturbances consequent on the high tension and heavy stress of modern life. All of these conditions tend to produce a toxemia, which may be an early stage of Bright's disease.

It seems perfectly evident, therefore, that the most important thing in dealing with Bright's disease is the recognition and treatment of this

preliminary toxic stage. Of course, it is more conspicuous in some cases than in others. Sometimes it is apparently almost latent, and, of course, it is very frequently ignored by the patient who does not seek medical advice until serious structural alterations have occurred. But in a large proportion of cases advice is sought by patients with these initial symptoms, which may last for a decade before the grosser manifestations of Bright's disease occur. A recent writer has well said that a fully-developed heart or kidney case may be twenty years in the building. When it is once built, however, it is there to stay.

Now the toxemias which are a part of Bright's disease are probably not essentially different from others. The nature of the toxins is for the most part entirely unknown. Some writers, Strümpell, e. g., include bacteria as possible, though rare direct causes of the anatomical changes found in the kidneys. In this connection, mechanical causes leading to passive congestion should be considered, for the anatomical changes which result really constitute, according to Osler, a diffuse nephritis. For the most part, however, the cause is chemico-toxic, acting not only on the kidneys, which naturally bear the brunt of the morbid irritation, but producing wide-spread changes elsewhere.

Their effect on the cardiovascular apparatus is perhaps the most distinctive feature of the extra-renal pathology. A very nearly constant manifestation is increased blood-pressure. Its mechanism is complex. Overstimulation of the nervous mechanism, of the myocardium and of the vasoconstrictor apparatus by toxins and psychoneurotic influences and muscle-strain furnishes its rationale, i. e., in the early stages, before compensatory changes, represented by arteriosclerosis, have taken place. Later, organic narrowing of arterioles supplements or supplants arterial spasm. What may be designated as a toxic, functional disturbance due to vasoconstriction and myocardial irritation may exist for a long time before the overstrain produces compensatory thickening of heart and blood-vessel walls. Associated with these changes, and at least partly dependent on them, headache, vertigo, epistaxis, etc., occur, although they are more conspicuous as later symptoms.

Nervous and gastro-intestinal symptoms of diverse character are common, as with most chronic intoxications. I cannot go further into details, and will content myself by urging the most critical study of all patients presenting this class of symptoms, recognizing in each a potential, if not actual, Bright's disease, and pointing out to such patients the trend of events, and

insisting, so far as practical, on such a change of régime as will lead to detoxication by all the allied forces of the *vis medicatrix naturae*—hepatic, phagocytic, antitoxic, etc. which may very possibly lead to the abortion or arrested development of incipient Bright's disease. Of course, this will require a degree of acumen and tact on the part of the physician, and confidence and fortitude on the part of the patient which cannot always be found.

In the later stages the symptoms already described are accentuated, while others are added. Marked general debility develops with varying rapidity and may be the first symptom that convinces the patient that medical advice is needed. Neither albuminuria nor casts may be present at the time of the examination, and, as is well known, dropsy may never be present. Too often a routine test for albumin, if negative, is allowed to exclude Bright's disease. Of course, this is inexcusable, because it is perfectly well known that advanced renal disease may be present, and repeated tests during the period of the examination fail to show either albumin or casts. On the other hand, there are many cases in which their presence is not associated with any serious pathology. Their significance can only be determined by carefully weighing all correlative signs and symptoms, and is a matter of clinical judgment.

The clinical problems requiring solution in a suspected case of Bright's disease are many and weighty. It is obviously much more than a question of renal pathology. It is true that this is often, in a certain sense, the key to the situation. For reasons already given, the stage of the disease is largely indicated by the degree of kidney involvement, although this is not always true. Sometimes the cardiovascular apparatus controls the situation, and is the perfectly obvious source of danger. These changes can for the most part be readily determined—the grosser changes in heart and blood-vessels accurately, the minuter changes in cerebral and other blood-vessels, a conspicuous source of danger, only conjecturally.

The determination of the degree of kidney involvement is easy in some cases and extremely difficult in others. We know that albumin and casts alone tell us little, and their absence not much more. Albumin and casts, however, when present, taken in connection with other symptoms, more especially those referable to the cardiovascular apparatus, are quite sufficient to establish a general diagnosis. They may be quite sufficient to serve as the basis of a very reliable prognosis. But the vital question, as to the extent of the kidney lesion, remains unanswered.

There may be plenty else to kill the patient, but *this* is a legitimate and indeed a paramount problem, and demands our best effort for its solution. How shall we proceed?

If we are to go behind the returns of the routine clinical laboratory findings in our effort to determine the extent of renal change, I can see but one available method, and that is to study the capacity of renal function, and take this as a measure of intact renal structure. Obviously, any conclusions based on such methods are largely inferential in character, and are liable to be vitiated by certain important facts, which demand serious consideration.

Perhaps the most important of these facts is that the kidneys, in common with other organs, have a very large excess of structure, and consequently of function. They have at least four times, some writers claim eight times, as much secretory structure as is ordinarily required. It follows, therefore, that much more than one-half of both kidneys can be destroyed without any symptoms, directly referable to limitation of kidney function, developing under ordinary conditions.

It follows that it is obviously impossible to exclude quite extensive destruction of renal tissue by a study of renal function under ordinary dietetic conditions. This is quite in accord with daily clinical experience. It is notorious that with a normal urea excretion of say 1 or 2 per cent., the syndrome of so-called uremic intoxication may be imminent, precipitated perhaps by some comparatively trifling event. If we are to endeavor, therefore, to read the enigma of renal pathology, in a study of renal function, it is evident that we can only do so by estimating the total functional capacity and comparing this with the standards of health. Here again we are confronted by a serious obstacle in the way of wide variations in conditions of ordinary health. Bearing in mind the observations of Ophüls, Woolley and others, we may fairly assume that some of these variations are due to loss of structure consequent on the various lesions so uniformly found in adult life, while in others the size of the kidneys may possibly be congenitally small or large, while in still others, transient causes, toxie, vascular, etc., may exist; but whatever the cause may be, the clinical fact is that under apparently normal conditions the functional capacity of the kidneys, as measured by current methods, will present in different individuals extreme variations almost in the proportion of one to two. The milder grades of functional limitation are, therefore, of doubtful clinical significance. Here again it is a question of clinical judgment, based on all available data.

When clinical tests indicate a functional capacity of less than 50 per cent. of the average, it must be carefully analyzed in the light of all available data. It may mean that at some time in the past an acute nephritis has come and gone, possibly even unrecognized, leaving a considerable portion of renal structure damaged beyond repair, but with no tendency to progress. It may mean that for a long period of months, or possibly years, a slowly progressive lesion, a part of a classical Bright's disease, may have gradually destroyed renal tissue, and that then the toxemia which caused it disappeared, and with it any tendency to progression. In cases such as these, if the curtailment of function is not too great, patients leading a normal life cannot be regarded as suffering from any disease. They have plenty of kidney structure for all the ordinary requirements of life. If a grave emergency arises, however, making extraordinary demands upon the kidneys, they may not be equal to the occasion, and death may ensue.

The determination of the functional capacity of the kidneys by some of the methods now in vogue appears to me to be essential; first, for the recognition of the extent of kidney disease already known to exist by other methods of examination; second, for the determination of limited function, as indicating damage done to the kidneys by preexisting or even coexisting disease, recognized or latent, but showing no signs at the time of examination. This is especially important in surgical cases in which there is an increased demand for renal function.

I cannot now enter into a detailed discussion of functional kidney diagnosis, having done so exhaustively in a recent paper.¹ As a routine procedure, quickly and easily executed, the phenolsulphonephthalein test of Rowntree and Geraghty is undoubtedly the best. But little importance should be attached to slight variations in percentages, as shown by this test. Furthermore, it utterly fails to make the most important differentiation possible in the renal pathology of Bright's disease, viz., between the different types of renal block—urea, chlorides, etc. Dietetics, our most important single therapeutic weapon, hinges on this very distinction, which should be carefully made in all advanced cases.

The capacity of the kidneys to eliminate urea furnishes, perhaps, the most important single index of their detoxicating power. This statement is made in view of the probable fact that all circulating toxins are of nitrogenous com-

position. There is indubitable proof that a separate renal mechanism deals with the different groups of excrementitious substances. It may even be true that there is a differential capacity on the part of the kidneys in dealing with individual substances, but it is certainly true of groups. There may be either renal block or abnormal permeability for either water, chlorids or urea. It is, I think, perfectly logical to assume that there will be a closer parallelism between the renal permeabilities for chemically related than between those of unrelated substances. The inference, therefore, seems fair that, inasmuch as urea is the principal end-product of nitrogenous catabolism, that the capacity of the kidneys to eliminate this substance is the best measure of their capacity to eliminate the unidentified toxins, presumably of nitrogenous composition, responsible for the syndrome of Bright's disease and the cardiorenal pathology which underlies it.

As already stated, the study of the urea excretion under ordinary dietetic conditions does not give adequate information, excepting perhaps in very advanced cases, when it is least needed. Obviously, the alternative is to introduce into the circulation preformed urea in quantities large enough to test the maximal capacity of the kidneys. The method which I have adopted, and which is described at length in another paper, is, in brief, to give the patient 30 grams of urea in the morning in connection, perhaps, with a small amount of gruel, and measuring the urea output in two-hour periods for twelve or twenty-four hours, beginning two hours before giving the urea. Normal kidneys of adults will give a maximum output of 6 to 10 grams in one two-hour period. Badly damaged kidneys will excrete a maximum of $\frac{1}{2}$ to 2 grams per two-hour period. Approximately, one patient in ten may be nauseated by the urea, but it is absolutely non-toxic. The rate of absorption from the digestive tract is a disturbing factor, but in practically all cases the blood is certain to become surcharged with urea, and give the kidneys an opportunity to do their maximum work. According to Ambard's investigations, and they have been confirmed in several French quarters, the urinary urea should be about fifteen times that of the urea content of the blood. It would, of course, be desirable to eliminate the uncertain rate of absorption by substituting the intravenous method, but aside from the technical difficulties this seems at present entirely impractical on chemico-physiological grounds.

The permeability of the kidneys to salt can be easily determined by estimating the daily output

1. "Functional Diagnosis of Kidney Disease." Read before Cincinnati Academy of Medicine, April 14, 1913. Published in Cincinnati Lancet-Clinic, Aug. 23, 1913.

on a definite salt intake of say 2 to 5 grams, so adjusted as to produce a chlorid balance for about three days, and then suddenly raising the intake to 10, or, better, 15 grams.

The information furnished by this test is of the highest practical value. Many a patient is placed on a régime of proteid starvation when limitation of salt is the thing needed, and *vice versa*. Such a blunder is no longer necessary, and is, in fact, disgraceful. It would be interesting to discuss in greater detail the various aspects of chlorid retention, e. g., the dry form which it assumes in some cases, and the dropsical aspects of others, but time does not permit.

The water-excreting capacity of the kidneys can be tested by giving 300 c.c. of water on fasting stomachs. A well-marked diuresis should occur in less than one hour. Its bearing on such facts as the exclusive milk treatment is obvious.

The general discussion of the diagnosis of Bright's disease would not be complete without some reference to blood-analysis. Theoretically, this should be the final court of appeal as to the adequacy of renal function, for the kidneys have done their work perfectly if depuration of the blood is complete. Unfortunately, as already stated, we are as yet in almost complete ignorance of the nature and identity of the toxins of Bright's disease. Here again, however, for reasons already stated, urea retention probably gives us the best index of the adequacy of this particular renal function. It is, moreover, normally present in the blood in amounts large enough to be estimated, and when studied in relation to the proteid intake on the one hand and the urinary urea on the other, furnishes information of great value.

There should not be more than .01 to .04 per cent. of urea in the blood under ordinary conditions. In a recent paper,² I have described a very simple method for determining the urea content of the blood, by a modification of the Hüffner apparatus. It is very easy and can be carried out by any one at all familiar with laboratory methods.

The study of chlorid retention from the side of the blood is not nearly so simple as that of urea. It may leave the blood and find lodgment in the tissues, so that a normal chlorid content of the blood would not necessarily exclude chlorid retention.

It will thus be seen that our knowledge of Bright's disease has been extended in many directions, and that practical diagnostic methods have

been developed along these lines. The time has come when a routine examination of the urine no longer discharges our obligations to this class of patients. Certain hitherto occult signs of renal inadequacy, cardiovascular disturbances, etc., are available as indices of the damage done to the kidneys in the wide-spread havoc wrought by the intoxications of Bright's disease; and when the general diagnosis has been made, further differentiation is not only possible, but imperatively demanded in the interest of a rational therapy.

RENAL PATHOLOGY AND URINARY FINDINGS IN CHRONIC BRIGHT'S DISEASE *

ILLUSTRATED WITH THE STEREOPTICON

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It is clear to any one at all interested in the study of the various forms of nephritis from the pathological standpoint that the present classification or rather classifications, for their name is legion, is most complicated and difficult. This is especially noticeable to those whose duty it is to teach this subject, and was brought home repeatedly to the writer when attempting at the autopsy table to reconcile the expectation, suggested by a study of the clinical features in general and the urinalysis in particular, with the actual gross pathology of the kidneys. When the cases were further studied by the preparation of histological sections, the case was made even worse, and the iconoclastic, but classical, paper of Cabot was brought to mind. Not with the idea of improving on the latter author's observation, but with the hope of bringing the illustration of the same thought more clearly before the minds of this gathering of the profession of the state, I have selected a series of cases, twelve in number, from the autopsies performed at the Indianapolis City Hospital during the current year, and shall briefly present in sequence an abstract of the salient points of the history, one or more urinalyses, the gross picture of the kidney as removed at autopsy and a reproduction of the picture shown by histological study of sections from the organs.

Case 1.—Case of large abdominal carcinoma. Urinalysis in January showed specific gravity

2. "Variations of the Urea Content of the Blood, with a Practical Method for Its Determination." Published in the New York Medical Record, Aug. 30, 1913.

* One of the papers in the symposium on Chronic Bright's Disease, read at the West Baden session of the Indiana State Medical Association, Sept. 25, 1913.

1.028, a trace of albumin with many granular casts and desquamated epithelium, but in March a specific gravity of 1.010 and 1.012 and no albumin or casts. The kidney proves to be a large, smooth organ without much evidence of pathological changes. The microscope shows moderate cloudy swelling of the cortical epithelium but no fibrosis.

Case 2.—Case of cardiac disease and severe nephritis. Analyses show specific gravity ranging from 1.020 to 1.026 and large amounts of albumin, blood- and pus-cells and granular casts. Grossly the kidney is a small, red, granular type. The microscopic, cloudy swelling, hemorrhage, slight fibrosis and a very marked general infiltration with lymphocytes.

Case 3.—A plain case of uremic coma. Analysis shows a very high percentage of albumin, granular casts and renal epithelium. Grossly the organ is a very small, red granular one. Microscopically the picture is that of chronic diffuse fibrosis with all its consequences to the renal structure.

Case 4.—Case of morphinism and exhaustion. Analyses on the same day show a variation of specific gravity from 1.008 to 1.020 with albumin, blood- and pus-cells. Grossly the organ is rather small, smooth of surface and lobulated (congenital). Microscopically we note marked acute parenchymatous degeneration with evidence of a general chronic fibrosis.

Case 5.—Case of arteriosclerosis, cardiac hypertrophy, suspected aneurysm. Analyses show the characteristic low specific gravity but a high percentage of albumin and both granular casts, and blood- and pus-cells. Grossly the organ is very small, coarsely granular, firm and contracted. The microscope shows the typical diffuse fibrosis of advanced degree together with a renal abscess not noticed in the gross examination.

Case 6.—Case of hepatic cirrhosis and suspected syphilis. Analyses show specific gravity 1.010 to 1.015, a large amount of albumin with pus cells and renal epithelium. Grossly the organs are large, red and smooth. Microscopically we note marked edema and distention of both glomeruli and tubules, congestion and diffuse increase of connective tissue.

Case 7.—Old prostatic case with retention and cystitis. Analyses show low specific gravity with small amount of albumin and blood and pus. Grossly we see a large, smooth organ with one large subcapsular cyst and the pelvis the seat of suppurative inflammation. The microscope shows the kidney parenchyma entirely normal.

Case 8.—Obscure case, suspected of hysteria by examining physician. Analysis of urine taken from bladder at autopsy shows high albumin content and enormous numbers of hyaline and granular casts. Grossly the organ is large, slightly granular, and with a few scars on the surface as though from healed infarcts or gumata. Microscope shows extreme cloudy swelling, granular degeneration and necrosis of cortical epithelium, together with some old fibrosis of the tufts.

Case 9.—Patient admitted semiconscious and died before diagnosis was made. Analysis made from urine at autopsy shows specific gravity 1.010, heavy albumin content and no characteristic sediment. Gross appearance, small, granular, lobulated organ with subcapsular cysts. Microscope shows extreme cloudy swelling and necrosis of cortical epithelium, chronic fibrosis and arteriosclerosis of extreme degree.

Case 10.—Case of suspected syphilis with laryngeal stenosis. Analysis shows normal urine in every particular. Gross appearance, small, red, granular kidney of typical chronic interstitial nephritis. The cortex very narrow. The surface coarsely lobulated. Microscope shows the picture of advanced chronic fibrosis especially involving the tufts and with marked hyaline degeneration of the connective tissue.

Case 11.—Case of chronic mitral insufficiency, failure of compensation and suspected nephritis. Analysis, urine normal. Gross appearance of kidney normal. Microscopic picture normal.

Case 12.—Case admitted drunk and died later of delirium tremens. Analysis shows perfectly normal urine. Grossly the organs were very dissimilar in size and form, one long and narrow; the other short and thick; both slightly small; cortex narrow with moderate granularity of the surface. Microscope shows moderate diffuse fibrosis and distention of the tubules.

From these brief descriptions it will be seen that it is impossible to reconcile the analyses with the gross and minute appearance in a manner that would correspond with any known classification. We are therefore driven to the following conclusions:

1. The ordinary urinalysis does not give us any very dependable information as to either the structural or functional condition of the kidney.
2. The acute degenerative changes in the renal epithelium are far more important to the kidney function than any amount of fibrosis.
3. An advanced of fibrosis is not incompatible with perfect kidney function.

4. In suspected nephritis the analysis should always be considered in conjunction with other clinical phenomena.

5. The present classifications of nephritis are complicated, unsatisfactory and should be used with full consideration of their limited application.

VASCULAR CHANGES SECONDARY TO CHRONIC BRIGHT'S DISEASE*

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In order to understand the relationship of the cardiovascular to the renal system when pathologic conditions of the latter are present, it is first necessary to have a pretty clear conception of the normal anatomic structure and physiologic function of the renal system and the relationship of the normal cardiovascular system to those conditions.

It is not the intention to take up valuable time with the details of these points, but it is desired to call your attention more particularly to the peculiar structure and arrangement of the glandular elements of the kidney, to the peculiar distribution of the blood-vessels through the kidney substance, and the intricate relationship of the vascular and tubular elements.

It is to be noted that the arteries going to the glomeruli are end arteries, that is, do not have any collateral connection with other arteries, that each breaks up into a cluster of capillaries forming the tuft, that this tuft is enveloped by the dilated inverted tubule in a manner similar to the envelopment of the lung by the pleura, that the venule coming from each tuft breaks up into a secondary plexus of capillaries which surrounds the tubule, particularly the convoluted portion, and that the structure of the tubule varies in the different parts of its course.

KIDNEY FUNCTION

The most generally accepted physiologic teaching in regard to the function of the kidney is that the water and the greater part of the more diffusible salts are secreted by the tuft, while the other constituents of the urine are given off by the remainder of the tubule. The quantity and composition of the urine depend on a number of factors, of which the following may be mentioned:

1. On the blood-pressure in the distribution of the renal artery.

2. On the functional activity of the epithelium lining the glomerulus and tubule.

3. On the rapidity with which the blood conveying material for secretion and excretion passes to and through the renal capillaries of the tuft and tubule.

4. On the amount of water and urinary elements contained in the blood.

5. On the nature and character of the chemical combinations in which the urinary elements and water exist in the blood.

Of these, probably the most important are the rate of flow of the blood through the renal capillaries, the degree of concentration and nature of the combinations formed of the urinary elements in the blood, and the so-called functional activity of the tubular epithelium.

According to Fischer the theories of the urinary secretion are attached to the kidney cells mainly and consist of:

1. The osmotic theory which is inadequate and untenable.

2. The secretory or physiologic theory which he asserts explains nothing.

3. The colloidal theory, which is his own explanation and involves two processes, namely: (a) the absorption of water from the blood; (b) the giving off of water to the tubule.

He assumes, if correctly understood, that secretion of dissolved material by the kidney is dependent first of all on a secretion of water by the kidney. After the water is secreted all other constituents of the urine come to be added to it in passing through the tubule by a process which he calls a "leaching out" of dissolved substances in the kidney cells, the process of absorption by the kidney cells following the same laws as the leaching-out process, being most markedly influenced by the chemical reaction of the cell substance.

The urinary constituents in passing from the lumen of the renal capillary into the lumen of the urinary tubule must pass through at least the following structures:

1. The capillary wall.

2. The tissue lymph spaces with the contained lymph.

3. The wall of the tubule.

To what extent they are modified in passing through these structures cannot be considered in this paper. It can scarcely be questioned, however, that any alteration in structure, in any one or all of them, histologic or chemical, must necessarily influence the passage of substances from the blood-stream through them into the urinary

* One of the papers forming the symposium on Chronic Bright's Disease, presented before the Indiana State Medical Association, at West Baden, Sept. 25, 1913.

tubule. Neither can it be reasonably doubted that the substances thus passing through them must influence the structure, chemical composition, and so the function of the various tissues entering into the formation of those structures, particularly abnormal substances, toxic and irritating in nature and action. Thus it will be seen that there is a very intimate and complex relationship between the cardiovascular and renal systems, even under normal conditions.

Recognizing this, one can readily understand why it is so difficult to determine in what manner and to what extent they influence each other in pathologic conditions in one or the other system. One can readily understand how a change in the quantity or quality of the blood passing through the kidneys, how a change in the structure or chemical composition in the walls of the renal blood-vessels would lead to an impairment of the blood-supply, and so a disturbance of the metabolic changes of nutrition and function of the kidney parenchyma. Indeed there is abundant clinical evidence to bear out this statement.

The development of nephritis following the ingestion of toxic quantities of many chemical substances, such as cantharin, arsenic, chloroform, carbolic acid, etc., or occurring during or following so many of the acute infections, particularly scarlet fever, diphtheria, typhoid fever, etc., where the toxins act on the walls of the renal blood-vessels or of the tubules, or both, seem to bear this out. So, also, Ophü! from a study of 1,000 consecutive cases concluded that so-called primary contracted kidney represents a disease which is the result of arterial sclerosis in the terminal arteries of the kidneys, and is closely associated with general arteriosclerosis.

On the other hand, when we attempt to ascertain the influence of the various forms of nephritis on the cardiovascular system, we meet with rather numerous and varied views. Jorès states that there are no characteristic vessel changes in nephritis, that the salient lesion of the smaller arteries is a marked fatty degeneration, the process probably beginning in the elastic lamina of the internal limiting membrane. The changes found in nephritis are common to those of arteriosclerosis as such, and may be the cause or consequence of the renal affection, or both may be the result of a third common factor.² In a series of autopsies he further found that the degree of cardiac hypertrophy in chronic nephritis could not be referred to the obliteration of the renal capillaries as some claim, for in the red, granular kidney, which is almost constantly associated

with arterial tension and cardiac hypertrophy, he found less destruction of the glomeruli than in the secondarily contracted kidney of parenchymatous nephritis, a form which not infrequently fails to produce any marked vascular changes.³

Anders⁴ states that in acute nephritis the blood-pressure is apt to be raised, especially in children. The pulse is often hard and tense, and though slow at first, may become accelerated later. Cardiac hypertrophy may be present to a slight degree and the aortic second sound accentuated.

Nobécourt and Voisin in a study of twelve cases of nephritis in children, nine of which were scarlatinal in origin, found that increased arterial tension was a prominent feature, which disappeared when the disease was cured, or fell when it became chronic. In fatal cases there was dilatation of the heart. In prolonged cases there was cardiac hypertrophy. In old cases of chronic nephritis or in acute attacks, enlargement of the heart was evident and due to dilatation.⁵ Riesman noted the tendency to hemorrhage in acute Bright's disease and favored the view that the nephritis was the cause, most probably by toxic influences, possibly aided by arterial disease and hypertension.⁶ Lennox Gordon, from observation made in nine cases of nephritis, seven of which were acute and two chronic with acute symptoms superimposed, found that in the acute nephritis of children the blood-pressure was often raised to a marked degree and regarded it as of diagnostic importance in that in no other disease of childhood is there to be found the same high range of blood-pressure. Those having the highest pressure were those in which only a trace of edema was noticeable. It was difficult to explain the high tension and the rapid drop in some cases, except by assuming a large degree of vascular spasm due to the action of the toxins on the arterial walls.⁷ McConnel⁸ says that in acute nephritis of two to three weeks duration distinct evidence of periarteritis may be observed. In a month to six weeks endarteritis may be evident. These changes in the arteries are not limited to the renal artery, although most marked there. But it is more especially in chronic Bright's disease that the lesions in the blood-vessels generally are so distinct. He apparently arrives at the conclusion that while some changes are produced in the acute affections, yet they are most characteristic of chronic renal disease.

3. Verb. Deutsch. Path. Gesellsch., 1908.

4. Sajous's Analytical Encyclopedia of Practical Medicine, II.

5. Archives de Med. des Enfants, December, 1909.

6. Am. Jour. Med. Ass., November, 1907.

7. Arch. Pediatrics, 1911.

8. Sajous's Analy. Ency. of Practical Med.

1. Arch. Int. Med., February, 1912.

2. Archives of Virchow, Vol. 111, 1905.

Prym, after examining the arterial changes in the vessels of two young individuals dying of Bright's disease and who had no clinical symptoms of arterial change during life, came to the conclusion that genuine Bright's disease without beginning arteriosclerosis did not exist.⁹

Loeb regarded the high arterial pressure primary and the cardiac hypertrophy secondary in acute and chronic nephritis, and looked on the elevation of blood-pressure as being a regulating phenomenon, the work of the glomeruli, but was uncertain whether by clinical or by reflex means.¹⁰

Mayet says that while it is likely that the renal lesion sometimes follows the high blood-pressure and the cardiac hypertrophy, experimental evidence shows that the opposite and more usually conceived sequence may occur. He attributes the frequent coexistence of nephritis and cardiac hypertrophy to reflex action between the glomerular arterioles and the innervation of the heart and blood-vessels, by which the least constriction of the renal arterioles react on the vasomotor nerves.¹¹

Rudolf states that although high blood-pressure is very commonly associated with the cardiovascular changes present in renal disease, yet a notable increase in arterial pressure may be present, particularly in acute renal disease at a time when there are no physical signs of gross changes in the heart and arteries, leading some to believe that the arterial changes are secondary to the increased blood-pressure, this being supposedly dependent on heightened activity of the vasomotor system due to some toxic substance.

Fischer, in discussing the bearing of arteriosclerosis on kidney disease, says "that it has generally been observed that in the acute types of parenchymatous nephritis which are associated with a decrease of urinary secretion, no appreciable changes in blood-pressure are to be noted. While satisfactory experimental and clinical observations proving that nephritis is followed by arteriosclerosis can hardly be said to exist, an enormous number show clearly that nephritis follows arteriosclerosis. So also the cardiac hypertrophy is more the consequence of the arterial disease than of the kidney disease, as shown by the fact that the worst types of nephritis are those least liable to be associated with any hypertrophy of the heart, and that enormous hypertrophies exist without any kidney symptoms being manifested. Some apology should perhaps be offered for quoting the views of so many who

have written on this subject, but it was considered advisable to indicate the indeterminate and inconclusive state in which our knowledge of the subject at present exists. It is evident that the character and nature of the etiologic factors taking part in the production of a nephritis, together with the constitutional make-up of the particular individual, play their part in determining whether or not any cardiovascular changes will result therefrom. It is also evident that at least some cases of acute and subacute Bright's disease lead very rapidly to the production of a high arterial tension, and if lasting so long as six weeks arterial changes and cardiac hypertrophy may be observed. Also that chronic Bright's disease, whether of the so-called parenchymatous or of the interstitial type, for Fischer has called attention to the fact that between these two types of kidney disease the most characteristic difference is the way in which the two pathological states are brought about, in the former the whole kidney is usually affected, and equally, while in the latter only local areas are involved, these all showing conditions characteristic of the former with comparatively healthy tissue intervening, is as a rule associated with more or less cardiovascular changes more pronounced in type and permanent in character.

Saundby in his lectures on renal and urinary diseases says "that next to dropsy and the state of the urine, the alterations in the circulatory system are the most striking clinical and pathologic facts met with in Bright's disease. Clinically there are physical evidences of cardiac hypertrophy and increased arterial tension; pathologically, hypertrophy of the heart and thickening of the walls of the small arteries. Bright in recording the various organic changes in 100 cases of renal disease was inclined to attribute the hypertrophy either to the altered quality of the blood, acting as an irregular and overactive stimulus to the heart itself, or to its action on the capillary circulation, in some way inducing obstruction to the flow, rendering necessary greater force of the heart to send the blood through the peripheral circulation.

Since the time of Bright various explanations, both of a physical and of a chemical nature, have been suggested, but all have been shown to be inadequate to meet all conditions.

Mahomed proved that the rise in blood-pressure preceded the appearance of albuminuria. In the smaller arteries and arterioles there is a great variation in appearance in different cases, probably representing different stages of the same process. Some maintain that in the early stages there is thickening of the muscular median coat,

9. Arch. Virchow, 1904.

10. Deutsch. Arch. Clin. Med., Vols. 3 and 4, 1906.

11. Lyon. Med., June, 1912.

while in the later stages the proliferation of the intima is predominant; the toxic substances in the blood first stimulating the muscular coat to increased contraction leading to the increased blood-pressure and to the muscular hypertrophy. Later the muscle degenerates, yields under the pressure, begins to dilate, and to compensate this the intima thickens, the hyperplastic tissue tending to undergo hyaline, fatty and calcareous changes, tending to produce the condition of so-called obliterative endarteritis.

In the hypertrophy associated with arteriosclerosis Fischer points out several probable causative factors:

1. The reduction of the caliber of the blood-vessel.

2. The loss of elasticity of the blood-vessel.

3. Increased viscosity of the blood, and regards the hypertrophy as secondary.

It will scarcely be necessary to refer in detail to the various structural changes that may be found, nor to the manner in which they develop, since these changes are practically analogous to those of arteriosclerosis in general. The explanation of the cardiovascular changes is not a simple one. It is usually supposed that a period of high tension precedes the anatomical changes. This high tension is assumed to be due to vasomotor stimulation producing spasm of the vascular walls, the vasomotor activity probably being dependent on some excitant material of a toxic nature present in the circulation which may act directly on the vascular walls, or indirectly on the vasomotor center, or on both. There is as yet no evidence by which this material can be recognized. Some assume it to be a product of nitrogenous metabolism, others that it is the result of excessive production on the one hand or deficient production on the other hand of one or more of the internal secretions of the body. It is also assumed that the high tension of renal disease is brought about by the attempt to maintain an efficient flow of blood through the kidney substance, for since the area is greatly diminished in extent in the kidney when diseased, the flow can only be maintained by the increase of the general blood-pressure by the contraction of other vascular areas.

Marcusè suggests that the inflammation in the kidney obstructs the flow of blood through the kidney, so increasing the flow through the suprarenal artery, a collateral of the renal artery, which stimulates the activity of that organ, increasing its production of the suprarenalin secretion and so an increased pressure.¹²

In conclusion, a word of warning may be offered in regard to the treatment of the high blood-pressure and cardiovascular changes accompanying Bright's disease. The general tendency is to give such remedies as directly tend to bring about a reduction of blood-pressure, such as cardiac depressants and vasodilators. There is the danger, as Fischer has pointed out, particularly in those cases of arteriosclerosis in association with chronic interstitial nephritis, that with the lowered blood-pressure there not infrequently takes place a fall in the urinary output, sometimes amounting to complete suppression. This is almost sure to follow the lack of blood-supply to the kidneys, for, as has been pointed out, the high blood-pressure is the result of Nature's endeavor to insure an adequate circulation through the renal vessels. Fischer also states that there is no justification in giving nitrites, etc., in chronic interstitial nephritis unless we can show that while reducing the general blood-pressure we are not at the same time reducing the blood-supply to the kidneys to a dangerous point. The specific treatment is too extensive a subject to consider in this paper and will be left for some one else to discuss.

THE EYE LESIONS OF CHRONIC BRIGHT'S DISEASE*

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The writer so recently has contributed an article† on the subject of the retinal signs of chronic Bright's disease and arteriosclerosis, with extended references to the literature on the subject, that he feels that no apology is necessary for quoting in part from that article.

Eye lesions are known to occur in from 40 to 50 per cent. of all cases of nephritis, and it is thought that the percentage would be larger if all cases of nephritis could have the benefit of an ophthalmoscopic examination.

As regards the form of kidney lesion present in renal eye lesions, the small contracted kidney or interstitial nephritis is the most frequent; chronic diffuse parenchymatous nephritis forms a close second; the nephritis of scarlatina is

* One of the papers in the symposium on Chronic Bright's Disease, presented before the Indiana State Medical Association, at West Baden, Sept. 25, 1913.

† Some of the Early Diagnostic Retinal Signs of Arteriosclerosis and Chronic Bright's Disease. *Jour. A. M. A.*, Sept. 21, 1912, lxx, 1032-1036.

third, and the least frequent are the rare cases of amyloid degeneration. Both eyes are involved as a rule.

It is believed that the eye disease does not depend so much on the existence of the renal affection as on the fact that the blood-vessels are diseased. While opinions may differ as to the exact relationship between general arteriosclerosis and chronic Bright's disease, the fact remains that there are certain manifestations and signs more or less common to the two conditions, and evidence seems to be accumulating in favor of the theory advanced by Sutton and Gull¹ in 1872 that chronic Bright's disease, and in particular that type of the disease which has been termed chronic interstitial nephritis, is a manifestation of general arteriosclerosis in which the kidney symptoms are the predominating ones.

Furthermore, as Dieulafoy,² and more recently Ophuls³ have pointed out, no advanced general arteriosclerotic changes exist without an inflammation of the kidney to a more or less extent. Whether the renal lesion will be the predominant factor depends entirely on the condition of the kidneys and their power to resist the effect of the toxin which is the causative factor in the production of the vascular alteration.

While the onset of the disease is insidious, there may be rather indefinite symptoms for which the patient consults his physician, and among these is disturbance of vision. It often happens that the ocular manifestation is the only one to attract the attention of the patient, and it is in these cases that the diagnosis of general arteriosclerosis or Bright's disease is made first by the ophthalmologist from the typical retinoscopic picture coupled with the urinary and other findings. In these cases there are usually extensive retinal alterations, including white lines along the vessels, due to thickening, tortuosity and irregularity in the size of vessels, so characteristic of arteriosclerotic changes, hemorrhages and the appearance of white spots or streaks of fatty degeneration and fibrinous exudate radiating from the macula, forming the well-known picture of albuminuric retinitis, in which the kidney lesion is so far advanced that many observers have said that a person with a well-marked albuminuric retinitis seldom lives more than two years and usually dies within a few months. This prediction has come true so often that clinicians have come to look on albuminuric retinitis as one of the late manifestations and of serious import.

The hemorrhagic retinitis of a general arteriosclerosis and the typical albuminuric retinitis of chronic Bright's disease are familiar pictures described in text-books, but there are less pronounced retinal lesions which may or may not attract the attention of the patient and which appear early in the history of the disease. deSchweinitz⁴ has given us the most accurate and classical description of these changes, which in brief are as follows:

1. Alterations in the course and caliber of the retinal arteries.

2. Alterations in the reflections from and the translucency of the walls of the retinal arteries, manifesting themselves: (a) in the increased distinctness of the central light streak on the retinal vessel and an unusually light color of the entire breadth of the artery; (b) loss of translucency, so that it is impossible to see, as is possible in the normal state, through the artery, the underlying vein at the point of crossing; (c) positive changes in the arterial walls consisting of whitish stripes indicating degeneration of the walls.

3. Alteration in the course and caliber of the veins, together with signs of mechanical pressure, manifesting themselves in (a) undue tortuosity; (b) alternate contractions and dilatations; (c) an impeded venous circulation, where a diseased artery crosses it; (d) changes in the venous walls precisely as they occur in the arteries, so that the whitish stripes border the vessels and are indications of degeneration within its walls.

4. Edema of the retina, manifesting itself as a grayish opacity, which may be present in the immediate neighborhood of the papilla or in spots over the eye-ground and along the course of the vessels, looking like a fine gray haze, or in little fluffy islands far out in the periphery.

5. Hemorrhages, manifesting themselves as linear extravasations along the course of the vessels, roundish infiltrations scattered over the fundus, or sometimes in a drop-like form.

Among the very earliest retinal manifestations are the almost indistinguishable small white dots, few, or perhaps many in number, which appear in the neighborhood of the disk and most frequently in the macular region; the haziness and often delicate hyperemia of the disk; isolated faintly milky colored areas in the retina; the beaded appearance of some of the larger vessels; the alteration in the character of terminal vessels (the corkscrew appearance described by deSchweinitz) and, as important as any indication, the appearance of scotomata either with or with-

1. Sutton and Gull: *México-Chirurgical Trans.*, 1872, iv.

2. Dieulafoy: *Text-Book of Medicine*, 1911, ii.

3. Ophuls: *Archives of Internal Medicine*, February, 1912.

4. DeSchweinitz: *Diseases of the Eye*, 1910.

out visible retinal alteration. Any two or all of these lesions may coexist, and any one or all may exist with but little if any alteration in the vision as detected by the patient. Usually, however, the patient detects a slight impairment of the vision which prompts him to seek relief, or, as is frequently the case, the condition of the retina and its effect on vision are discovered by accident, as in the routine examination for glasses.

The fact that the very early retinal lesions in arteriosclerosis largely disappear under favorable conditions, only to reappear later in a more advanced form, may be taken into consideration, though the significance of the lesions from a diagnostic and prognostic standpoint should not be underestimated. The disappearance of the lesions is due to a change in the mode of life of the patient, with improved hygienic and dietary regulations, or a combination of the two associated with appropriate therapeutic measures which increase the resisting power to the pernicious effect of the toxins.

As has been pointed out by Ophuls⁵ and others, it is difficult if not impossible to draw any distinct line of demarcation between general arteriosclerosis and chronic interstitial nephritis, for while clinically one or the other may seem to be most important, autopsy seems to show that the two conditions are present together and that they both come under the heading of arteriovascular change due to some toxin.

It is equally difficult to say whether the eye lesions should be considered as a manifestation of general arteriosclerosis, either in which the nephritic symptoms are to be more or less pronounced, or in which the nephritic lesion is secondary and of minor importance, inasmuch as the early retinal lesions are common to both types of cases. The eye lesions may not always be present, but from the fact that arteriosclerosis is generally found to involve the terminal arteries and that the retinal tissue is particularly susceptible to toxemias, it is quite possible that the lesions may be found in a large percentage of cases of arteriosclerosis if they are looked for by a painstaking ophthalmoscopic examination by the direct method with the patient's pupils fully dilated. When found, as they often are accidentally, they are of much diagnostic and prognostic importance and should lead to such attention of the patient as will tend to retard the progress of the general process.

Nettleship⁵ says that if we watch cases from the early stage to the end we shall find that both

in the interstitial and in chronic parenchymatous nephritis the retinitis may be either intense or comparatively mild. The coexistence of a relatively persistent high arterial tension is especially significant, as pointed out by deSchweinitz,⁴ for the retinal signs under consideration go hand in hand with the continuous high arterial tension of arteriosclerosis, and when coupled with such urinary findings as a low specific gravity, and even the occasional appearance of casts, the diagnosis is more complete. Cardiac hypertrophy and accentuation of the aortic second sound are manifestations which occur late as a rule and only add to the significance attached to the earlier findings.

Stengle⁶ recognizes the importance of ophthalmoscopic examinations in high blood-pressure cases when he says that the ophthalmoscope may reveal positive evidence of vascular disease. It is an undisputed fact that the retinal changes are the best indication of the state of the vessels generally which we possess and, therefore, it cannot be too strongly emphasized that ophthalmoscopic examination by the direct method with the eye under influence of a mydriatic throws a light on many cases of circulatory disturbance which otherwise might escape attention.

It is now the consensus of opinion that a toxin acting through the blood is responsible for both the hypertension and the retinal lesions, the latter being due to alterations in the blood-vessels or nervous elements of the retina, or both, and that when these two conditions are associated they are significant as pointing to the progressive lesions, including general arteriosclerosis accompanied by disturbance in renal function, eventual hypertrophy of the heart and symptoms which go with such changes.

In a certain percentage of cases the renal symptoms become the most prominent, and it is in these that we see a rapid development of the more prominent ocular signs known as typical albuminuric retinitis. In other cases the nephritic lesion is secondary to the general arteriosclerosis and in these cases the retinal manifestations may be of comparative insignificance. The early retinal signs, however, possess a peculiar significance in indicating the arteriovascular changes, which, progressing, may end in either type of the disease. The fact that eye signs are often detected during the course of an examination for the correction of refractive errors, or may be discovered otherwise in an accidental manner, shows the importance of an ophthalmoscopic examination in obtaining corroborative

5. Nettleship: Royal London Ophthalm. Hosp. Reports, xv.

6. Stengle: American Medicine, Jan. 2, 1904.

evidence in arteriosclerotic cases. Furthermore, as the ocular signs are among the very earliest symptoms susceptible to detection by careful examination, they are important from a prognostic standpoint because the earlier the diagnosis can be made the more probable it is that good results will be secured from treatment, and, as Veasey⁷ has well said, "If we wait until the condition can be detected by palpation of the pulse, a displacement of the apex beat with a hard thudding first sound and the accentuated aortic second sound, we have waited until the time has passed when the greatest benefit could have been accomplished." To this might be added that the retinal lesions of Bright's disease occur before there are urinary findings of significance, and it is only later that albumin and casts, especially granular, are found in the urine, and then the retinal lesion is also advanced so that the picture is quite characteristic and in keeping with classical text-book descriptions.

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INFLUENCE OF KIDNEY LESIONS IN DETERMINING THE SELECTION OF ANESTHETICS AND SURGICAL RISKS

OPERATIVE PROCEDURES AND POSTOPERATIVE RESULTS *

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It is not possible in the time allotted for one to treat the subject assigned me exhaustively, and I will, therefore, content myself with summarizing some points which appear to me to be of particular importance in the hope that suggestions thus brought forward may lead to greater elaboration in the discussion that is to follow.

The kidney has no internal secretion, it is an excretory organ pure and simple. It is the function of the kidney not only to remove from the body the deleterious substances resulting from physiologic metabolism, but it must also remove those deleterious substances which are the result of pathologic processes, together with those which are introduced from without, such as ether, chloroform and many other poisons. The importance of the kidney function may be better appreciated when it is known that man is supplied

with more than five times as much kidney substance as is ordinarily needed. As is well known, the capacity for overwork in an organ is an indication of its importance. Nephritis may be caused by chemical irritants or bacteria, or a combination of the two. It is a well-known clinical fact that the prolonged excretion by the kidneys of sugar, uric acid or bile will cause nephritis. It is also a well-known clinical fact that acute infections frequently cause casts and albumin to appear in the urine. Nephritis has been produced experimentally by the administration of cantharides, ether, chloroform and other drugs.

It follows, therefore, that it is of paramount importance that the surgeon should know not only the status of the kidney function before he advises operation, but that he should also know if possible the cause of the kidney inadequacy when it exists. For instance, evidence of a kidney lesion of a certain extent might warrant the surgeon in advising against an operation for carcinoma, say of the breast, while a kidney lesion of the same degree would make all the more imperative the demand for an operation for the relief of obstruction of the common duct by a gall-stone. In the latter case the chief cause of the kidney insufficiency may be and probably is the obstruction of the common duct, while in the first case the kidney trouble is in no way related to the disease in the breast, and the shock, the anesthetic and the blood loss consequent on the operation might throw on the kidneys a burden which they could not bear and death would be the result.

The essential nature of the kidney lesion present in a given case is, so far as our knowledge goes at the present time, not important. That is to say the surgeon is not particularly concerned as to whether the kidney lesion is vascular or tubular in character. But on the other hand it is important that he should know the degree or extent of the lesion. The normal coagulable nitrogen content of the blood is 0.051 gram per 100 c.c. of serum. Over 0.120 gram per 100 c.c. will soon result fatally according to Holweg.¹ The difficulties in estimating the nitrogen content of the blood put this test out of the reach of most surgeons, however. The phenolsulphonaphthalein test, however, is within the reach of all, and is, in the present state of our knowledge, the most reliable test we have for determining the status of the kidney function. It is much more reliable than is the total quantity of urine. Usually the phthalein test, the total quan-

7. Veasey: Jour. Ophthal. and Otolaryng., May, 1911.

* One of the papers in the symposium on Chronic Bright's Disease, presented before the Indiana State Medical Association, at West Baden, Sept. 25, 1913.

1. Deutsch. Archiv. f. klin. Med., 1911, clv, 216.

tity of urine and the general clinical findings should all be taken into consideration before reaching a conclusion. As to the use of general anesthetics in the presence of nephritis, it may be said that all general anesthetics cause casts and albumin to appear in the urine when given for any ordinary operative period. For short anesthetics gas and oxygen are less harmful than ether or chloroform, and ether is less harmful to the kidneys than chloroform. Infiltration (local) anesthesia is safest in the presence of severe nephritis, but is not always practical. In chronic interstitial nephritis we frequently have vascular changes which should weigh more heavily in the choice of an anesthetic than the condition of the kidney *per se*. In nephritis with changes in the vessel walls and high blood-tension, nitrous oxid is contra-indicated, as in conditions of this kind it is likely to cause cerebral hemorrhage. Both chloroform and ether cause casts and albumin to appear in the urine, but chloroform does this more often than ether. It follows, therefore, that both are to be avoided in acute nephritis and gas oxygen or local anesthesia used instead, provided there are no other conditions which weigh more heavily than the condition of the kidney in the choice of the anesthetic. For instance, high arterial tension with acute nephritis would indicate ether rather than gas, and the necessity for muscular relaxation might rule out either local anesthesia or gas. The amount of anesthetic used and the length of the anesthetic period are important points.

It may be much safer in a given case to give ether, thoroughly relax the patient and complete an operation expeditiously than to waste time by doing the work on a rigid patient under gas and oxygen.

I know of no adequate statistics or observations to base my opinion on, but theoretically I should hesitate to use large quantities of urea and quinin to produce local anesthesia in a patient with chronic Bright's disease.

As suggested above the sum total of the effect on the kidneys of an operation done under general anesthesia in the presence of Bright's disease may be beneficial. This is especially true of operations for the relief of obstruction and infection of the bile tracts and for the relief of like conditions in the urinary tract. In acute surgical conditions that immediately threaten life in patients with chronic Bright's disease, the existence of the latter would have no influence in deciding the question as to operation, but should govern the choice of the anesthetic and be duly considered in concluding as to the extent of the operation.

Given a case of acute perforation of the stomach in a patient with chronic Bright's disease, there would be no hesitation as to the necessity for immediate closure of the perforation, but one would perhaps hesitate to excise the ulcer area and do a gastro-enterostomy. Again, there should be no hesitancy in opening an acute appendiceal abscess in a chronic nephritic, but the kidney lesion would probably lead one to be content with simply opening and draining the abscess under local anesthesia.

In conclusion I would like to urge the importance of inquiring into the kidney function in all cases prior to giving a general anesthetic or performing a surgical operation, and to emphasize the importance of preliminary treatment in all cases showing imperfect kidney function, except, of course, in those cases in which the demand for surgery is immediate.

DISCUSSION OF THE SYMPOSIUM ON BRIGHT'S DISEASE (PAPERS OF DRS. M'CASKEY, ALBURGER, NEU, BULSON AND PORTER)

DR. FRANK B. WYNN, Indianapolis: In the brief time allotted for the discussion of this great subject, and in view of the splendid array of papers presented to us, I am somewhat uncertain as to what particular phase of this question my attention should be directed.

No reference has been made particularly to a recent contention with reference to edema in nephritis, as advocated by Dr. Martin Fischer of Cincinnati. His views with reference to it are totally at variance with those previously entertained, the old view being that there was retention of chlorides, an alkaline condition of the tissues. He contends that in the nephritic states there is in reality an acid state instead of an alkaline condition, and he advises, contrary to the previous advice, the administration of alkalis in the treatment of edema in nephritis. I thought it might be interesting to make a brief reference to the view of Martin Fischer. I am sure that we have all been charmed by his book, its practical manner, and still more charmed by his interesting demonstrations on the muscles, which seem almost to convince us of his view; yet there is a growing feeling perhaps, after all, that Martin Fischer is in error, and that it is wrong probably to administer alkalis, salt solution or alkalis intravenously, or by the drop method to counteract the dropsy of nephritis.

Another feature of interest, both therapeutically and pathologically, has come to our attention within the last year or two in reference to nephritis, brought to the notice of the profession by Dr. Percy of Illinois. He was not the first to call attention to the fact that perhaps there is some relation between the secretion of the thyroid gland and the nephritic state. The early French

investigators, back in 1897, were the first to call attention to the fact that thyroid extract will increase the urinary flow, and on this basis Percy experimented and reported a series of cases in *The Journal of the American Medical Association*, with the administration of thyroid gland, which produced amelioration of the symptoms in the nephritic state, with disappearance of the dropsy and near relief of all toxic symptoms. We have noted in chronic Bright's disease the presence of slight enlargement of the thyroid gland. This perhaps would suggest to us that in this gland there may be something wrong that has to do with the development of the nephritic state, and I think we should try out, at any rate, what has been recommended by Dr. Percy. *The Journal of the American Medical Association* thought sufficiently well of his report of cases and of this new phase of the question to give it editorial notice, as some of you recall, in the past year. I have tried the treatment in a few cases, and I assured myself that in edematous parenchymatous nephritis there is an increased urinary flow, with relief of dropsy to a considerable extent, but my experience has been insufficient to warrant me in expressing the view that it is a great remedy.

To come more particularly to the papers that have been presented, and particularly the second one, our attention is called in rather a startling way to what a few years ago Cabot told us. Cabot prepared and read a paper before the American Medical Association in which he reported the autopsy findings and the urinalyses of cases in the Massachusetts General Hospital. The paper was iconoclastic in its tone, and at the time it aroused a great volume of criticism, and yet we find ourselves to-day accepting, according to the views of the essayists, what he virtually claimed at the time—that the urinary findings in parenchymatous or interstitial nephritis are often misleading as to prognosis and diagnosis.

The day of infectious diseases is passing and the physician of the future will be required to consider more and more the maladies arising chiefly from causes other than infectious agents. This applies with special force to Bright's disease, which I believe to be on the increase because of modern conditions of life. I regret to admit that the profession has been spoiled in the matter of diagnosing nephritis. It is usually discovered by accident in an examination for life insurance, or only after the patient has the symptom complex well developed, which usually means a very serious condition for the patient. The quick and easy route to diagnosis which the urine seems to afford has led us to overlook and undervalue the early clinical phenomena of the disease. Undue weight has been given by the practitioner to the urine as affording a sure index both as to the type of kidney lesion and the prognosis. The symptomatology as described by the essayists,

showing toxic effects on the part of the nervous system, the gastro-intestinal apparatus, urinary function and eye, give early warnings that we are prone to call by other names than nephritis. Much has been said of the importance of recognizing pretubercular states. May it not be just as incumbent on us to be alert for pre-nephritic states? We should be more frequently on the lookout for the first symptoms of Bright's disease, or for those clinical findings which we know often lead to the development of the disease, such as high nervous tension with increased blood-pressure. In my own experience I have often found that cases which I at first was prone to consider as neurasthenic proved, on prolonged study, to be incipient nephritis. If we were more cautious in the early recognition of these cases our views as to prognosis would not be so bad.

Of the early symptoms which should excite our suspicion and careful investigation, none is commoner than a neurasthenic train of manifestations. The individual complains of tiring easily; has lost his former snap and interest in affairs; suffers from indigestion. Persistent anemia should always be carefully investigated with the thought of a possible beginning Bright's disease. A prominent and tortuous temporal artery is very suggestive. Other less frequent early symptoms are: "Dead fingers," or feeling as if benumbed by cold; cryesthesia, or great sensitiveness to cold; cramps in the calves of the legs and electric-like shocks; vertigo; anorexia; pollakiuria or frequent micturition followed later by polyuria. One or more of these symptoms should always lead us to make a careful study of the urine and a critical physical examination and clinical study of the case. It is not to our credit that we so often only make the diagnosis of chronic Bright's disease after edema, cardiac failure or pronounced uremic manifestation are present. We are always on the lookout for tuberculosis. Let us more frequently keep watch for the earlier stages of Bright's disease.

Certainly, by recognizing the disease early, more frequently than we do, and then by properly directing the life of the individual, it is possible to add years to life and in not a few instances effect a cure.

The interesting pathological considerations given teach us that while urinalysis affords the most valuable single method of diagnosis, we cannot rely on it alone in determining the anatomical type of renal disease, nor in reaching reliable conclusions as to prognosis. The toxic phenomena and cardiovascular conditions afford much more valuable information with reference to the latter. The chemical and microscopic findings, when combined with a careful study of subjective symptoms, physical conditions and the clinical phenomena of blood-pressure and renal functioning capacity, constitute the only safe and rational basis for a thorough understanding of the disease and its management.

Dr. H. H. MARTIN, Laporte: I think Dr. McCaskey's paper illustrates perhaps better than anything else we have heard to-day the advancement in medicine during the period of ten years. To go back and read any classical text-book description of chronic Bright's disease of ten years ago, and then listen to this paper, certainly marks a great advancement, especially in the study of chronic Bright's disease.

Dr. Porter has called our attention to the point that we have a surplus or oversupply of kidney tissue, perhaps five times more kidney tissue than is absolutely needed for the welfare of the body. Therefore, it is possible for us to have destroyed or retarded at least 4 or 5 per cent., or near 70 or 80 per cent. of kidney tissue and still have the kidney functioning, pouring out normal urine under favorable conditions.

The subject of Bright's disease is so large and so many factors have to be considered that it is impossible to cover the subject with any degree of thoroughness in a discussion at this time. In commenting briefly, I will limit my remarks to intestinal stasis as an etiologic factor in chronic Bright's disease.

For some time we have watched with much interest the condition of the kidneys in patients suffering with intestinal stasis, and especially in the more grave forms of stasis, and we are depending more and more on our urinary findings as an aid to diagnosis, prognosis and treatment. I say this with the understanding that I am firmly convinced that many of our so-called cases of Bright's disease are secondary to intestinal stasis, and that early recognition of this fact will oftentimes enable us to improve our prognosis by no longer limiting our attention to the renal system as the primary condition, and that the degree of improvement will depend most on the degree of cure of the primary condition and its permanency. The urinary picture of a kidney being overwhelmed by intestinal poisons is very constant. In fact, this kidney picture is so constant and so similar that it is quite possible in many cases to make a diagnosis of the primary conditions from the urinary findings alone. From our investigations along this line, we are becoming more and more impressed that those cases of Bright's disease explained as idiopathic, in which we could not learn the cause, are very frequently due to intestinal stasis. We feel justified in coming to these conclusions in reviewing the therapeutic results we have obtained in such conditions when treated along proper lines.

The following are the urinary findings of a few cases of intestinal stasis:

CASE 1.—Mrs. C. E. R. On Dec. 22, 1912, urinary analysis was as follows: Specific gravity 1.015; urine acid; a good trace of albumin; sugar negative; moderate increase in calcium oxalate; few hyalin casts. On Jan. 8, 1913, there was a slight increase of albumin with the presence of bile and indican, and very many bacteria; occa-

sional pus cell; occasional cell from the convoluted tubules. All epithelium somewhat broken down and degenerated. On January 15 she had an increase in the number of hyalin casts with occasional blood-cells. Bismuth meal was here given. On January 20 she had no albumin, bile or indican, but finely granular casts persisted. On February 17 she was normal. Examination two weeks ago showed a normal urine.

CASE 2.—Mrs. O., who had had a diagnosis of chronic Bright's disease made by several physicians. Her urinary examination, made June, 1912, was as follows: specific gravity, 1.010; albumin $\frac{3}{4}$ per cent.; sugar negative; a trace of bile; many bacteria; many pus cells; occasional blood-cells; many hyalin and waxy casts. There were a few finely granular casts. There were many cells from the collecting tubules. This condition remained much the same until December, when she had an acute exacerbation of the condition. On December 4 she had many blood and pus cells and many waxy casts, and rather many finely and coarsely granular casts. This attack was associated with severe constipation, and the relationship between the bowel and kidney conditions was first suspected. By January 20 the condition returned to what it was preceding the acute attack. A bismuth meal was given and a series of plates taken; also a colonic injection of bismuth was given. The urine has gradually improved and an analysis, on September 22, showed a urine with a specific gravity of 1.018; urea 8 per cent., otherwise normal.

CASE 3.—Mr. M. When he first came under my observation he was suffering from an attack of indigestion associated with very severe constipation. He gave a history of an attack of acute nephritis two years previously. His urine showed 1 to $1\frac{1}{2}$ per cent. albumin with many pus and blood-cells. He had many finely granular casts, few coarsely granular. He gave a history of constipation from birth. All attention was directed to the bowel, believing we there had the primary cause of its presence and possible previous trouble. After treatment for ten days along these lines, he had no albumin, with but few casts. An examination made a few days ago showed a urine with a specific gravity of 1.014; urea 9 per cent., with no albumin or casts.

Dr. F. C. HEATH, Indianapolis: Dr. Bulson has given us an accurate presentation of the eye lesions in nephritis, showing how the eye frequently is an index of what is going on in the body in cases of toxemia and destructive lesions.

He also illustrates the importance of a thing that is frequently overlooked, and that is the relationship which should exist between the general and special practitioner.

I want to emphasize one thing the doctor said about the prognostic significance of these eye lesions in nephritis. Dr. Bull of New York, a great many years ago, followed up a large number of cases, and he found that nearly all these

patients died within two years of albuminuric retinitis. Many of them died inside of a year, quite a number inside of six months. I recently have been able to get complete histories of ten cases, many of whom died within a few years after the discovery of retinitis, and some of them within six months. There is one case I want to mention particularly, because it illustrates what Dr. Bulson said, that sometimes the disease is not suspected until an examination of the retina is made. This patient had a pronounced albuminuric retinitis; he complained of nothing. He had not seen his family physician for years, and said the only symptom he had was a slight smothering sensation in the chest, and yet his urine was heavily loaded with albumin. The doctor in this case made a serious mistake in using too active medication with irritating diuretics, which shortened the man's life. He died within six months after the discovery of the albuminuric retinitis.

A few days ago I saw a case of albuminuric retinitis in a young man 22 years of age. Vision in the right eye was impaired, illustrating what Dr. Bulson said about the commencing lesion. There were just a few white spots in the macular region. In the other eye there was a more advanced condition, a neuro-retinitis and hemorrhage, and the vision was reduced to one-half.

It is true some patients with albuminuric retinitis live many years, but they are the exception, and I hope you will not ignore the prognostic nor the diagnostic importance of eye lesions in nephritis, nor the importance of the close connection between the special and general practitioner.

DR. JOSEPH RILUS EASTMAN, Indianapolis: I gather from what Dr. McCaskey and Dr. Porter have said that they have not much confidence in the phthalein or color test. I have no confidence in it. After some experience in the use of this test, and after reviewing the experiences of Kolischer of Chicago and Rovsing of Copenhagen, and others, I have come to the conclusion that it misleads as often as it leads one to a better understanding of the kidney lesions. I have no confidence any more in any test, particularly in any color test, which is based on arbitrary standards of renal function. Nobody can tell whether the standards of Geraghty and Rowntree are precise or not; they are entirely arbitrary. I imagine Dr. McCaskey can be forced to admit that the urea test is more precise than any color test. When we deal with urea, we are dealing with a normal organic metabolic product of the kidney. When we deal with phthalein, or indigo-carmin, or methylene blue, or phloridzin, we are dealing with substances which are entirely foreign to the kidney. The urea, is in some way at least, similar to the toxins. Because the kidney reacts in a certain way to the color tests, to the coloring material, and because the kidney eliminates, for instance, the phthalein with certain rapidity, it

is no evidence that the kidney is going to eliminate abnormal metabolic products with the same rapidity. It may be true that Cabot, Geraghty and Rowntree, Schmidt and many others, by means of color tests, have been able to reduce the mortality. On the other hand, Casper and others have been able to reduce their mortality by the use of phloridzin and other tests, not colored. Moreover, Tilden Brown and Bolton Bangs have been able to reduce their mortality to a greater degree since they have abandoned the use of color tests. Rovsing of Copenhagen, a very eminent man and reliable authority, has absolutely dismissed the color test, as have Brown and Bangs, for the reason that they can by using their judgment do better than they can by using the color tests. When we say that it is proper and better to use judgment, that does not go back to the time when we paid no attention to renal function. Not at all. It means a selection of cases. If the cases are selected as we use these color tests, eliminate the bad cases and use the tests on good cases, the mortality would be reduced, and if we are careful in examining the urine with a microscope and in differentiating between serum-albumin and nucleo-albumin, by the examination of all organs, we can select those for operation and can reduce the mortality very materially. and if at this time these color tests, particularly the methylene test, are going to be of great value, it will be in that they will stimulate study along the line of selection of cases by whatever means are valuable to that end. But at this time I believe that the phthalein test is unreliable and it is not necessary. If you introduce a catheter into the ureter you will in a certain percentage of cases produce anuria, as we have done, which will absolutely mislead. After all, the phthalein test is of very little use except in determining the condition of one particular kidney or the other. By the examination of the composite urine we can discover what the combined functioning capacity is, but as the result of reflex irritation and pain, we are likely to get anuria as the result of the use of the ureteral catheter, and we are likely to fall into an error there.

I submit, the color test is just as likely to mislead as it is to furnish reliable information.

DR. GEO. D. KAHLO, White Sulphur Springs, Va.: I am sure every one present has been impressed with the high scientific character of this discussion. As has been stated by Dr. Martin, nothing better illustrates the advances made in medical science in recent years than what has been said this morning on this subject. Fortunately, it also illustrates the advancement in medicine is largely from a prognostic standpoint. Refinements in diagnosis have improved to such an extent that we now have the advantage of them in this as in other diseases, and it is only within recent years the attention of the profession generally has been directed to Bright's dis-

ease, as it has in former years to tuberculosis, and to the possibilities in the early recognition of tendencies which we later recognize as associated phenomena of chronic Bright's disease. As has been shown, we not only have the urinary findings, which we formerly relied on too much, and on account of which many errors in judgment as to diagnosis and prognosis inevitably occurred, but we have the evidences as shown in the vascular system; we have evidences as shown in the cardiac changes, in the retinal changes, changes in the nervous system, and, at last, the functioning nervous system. The question in this condition is, what causes these changes, and what are we going to do for the patient after the condition has been recognized as a beginning nephritis? Dr. Martin referred to one of the most important etiological factors in his remarks, namely, intestinal stasis. How often do we find an intestinal condition, whether it be associated with enteroptosis or whether it be due to an atonic condition of the intestinal wall? We have in practically all these cases a toxic condition, an auto-intoxication you may call it if you wish, but there is a toxemia. There is a beginning nephritis, and the earlier we recognize that toxemia the better. Then we come to the question of how far the kidney is performing its function. We can tell that the structure of the kidney, the structure of the vascular system, the heart, are endangered by the presence in the system of toxic substances which can be avoided by a proper mode of diet. What is of primary importance in this connection is the regulation of the diet. It is not merely from my point of view a restriction or exclusion of proteids from the dietary, or a question of the amount of food people eat, and the conditions under which it is prepared, but whether the patient has a normal functioning gastro-intestinal tract to eliminate waste products. It is the accumulation of this waste in these toxins that is the source of irritation to the vascular system, and in connection with which we will find evidences in the kidney pathology, as shown in microscopic findings of the urine. Then, having recognized the nephritis, or at least the tendency thereof to exist, and that the cause of this is due to the toxemia, what are we going to do for the patient? That is the question we want answered. As a matter of fact, the diagnosis is of great importance in being able to recognize the condition with which we have to deal. From the standpoint of the patient, the diagnosis is of very little use unless we can offer some means for his cure. For instance, I believe that much damage is done by indiscreet reference to patients regarding the condition of blood-pressure or findings in the urine, because we find, as illustrated here in one case, no albumin, no casts, yet evidences of advanced nephritis. In another case there is albumin and casts with a normal kidney. High blood-pressure may be due to a toxic condition operating through the

system, although there may not be as yet actual organic changes in the arterial wall, yet the impression is had, and the patient arrives at such a conclusion, that there is increased blood-pressure which means actual thickening of the blood-vessel wall.

DR. LEONARD F. SCHMAUSS, Alexandria: In listening to these papers, which were excellent, I have been surprised that no mention was made of treatment of these cases. It stands to reason, when we get hold of these cases at the beginning, whether they have intestinal stasis or gall-stones, or any other infection, we can remove the cause, and by so doing, unless the kidney has been badly damaged, a cure will be obtained. But what are we going to do in those cases in which the kidney has been damaged—those cases which have been under treatment for years, comprising various forms of treatment, dieting, hygiene, etc.? Looking at it from that standpoint, I have been surprised that no mention has been made of decapsulation as a treatment for chronic Bright's disease.

In regard to decapsulation, I have not noticed anything in the literature about it lately, or very little, and, it seems to me, the conclusion has been reached on the part of the profession that the operation is of no value in chronic Bright's disease. It is a question in my mind whether that it really true or not. Is it possible that Edebohls, with his ability and observation and experience, was mistaken in regard to the value of this operation? Is it possible, too, that men like McArthur and the late Professor Ferguson were mistaken? I hardly think so.

I operated a case myself ten years ago of very extreme parenchymatous nephritis. The patient had been confined to bed for six or eight months with general anasarca, large white kidneys. By the way, the patient consulted Professor Senn, and at the time he advised that nothing be done in the shape of an operation. The patient was taken to Rochester, Minn., and operation was refused. At about that time I happened to hear of Edebohls' operation and corresponded with Edebohls, who kindly sent me the literature on the subject. I concluded the patient would have a chance with this operation, and I operated. It was ten years ago. It required three years before the casts and albumin disappeared. She began to improve after the operation, went on improving until in 1906 the albumin and casts disappeared and remained so until her discharge. I examined the urine at first twice a year, and later once a year. This operation should be done in suitable cases, because I am convinced there is more to it than has been determined up to the present time.

In regard to the causative factors, one or two have been neglected. Prolapse of the kidney is quite frequently associated with the presence of albumin and casts, producing irritation of the kidney, and it was the operation for prolapse

which led Professor Edebohls to the application of decapsulation for chronic Bright's disease as such.

In the differential diagnosis we cannot be too careful in excluding Bright's disease in conditions which are the predominating factors.

I remember one case brought into the County Hospital, Chicago, which was first taken to the Detention Hospital, and then to the Michael Reese Hospital. The patient was kept a few days at the Detention Hospital, and was transferred to the County Hospital with a diagnosis of nephritis. The patient had albumin and casts; but it turned out to be an extreme case of cerebrospinal meningitis. He was unconscious.

Another case brought in with a diagnosis of Bright's disease really died from carcinoma of the rectum, as was demonstrated at the autopsy.

DR. FRANK B. WYNN, Indianapolis: The treatment of Bright's disease is an exceedingly important matter, and in the near future should receive the consideration of this association. It would be a satisfactory thing for the membership next year to take up the treatment of Bright's disease in all its phases.

DR. WILLIAM A. FANKBONER, Marion: We get our greatest pleasure from study and observation very frequently from a disease we are not able to cure, particularly of the chronic type. Of course, if we can get these cases early, we can do much for them. If we secure them late, we can do very little for them.

In this discussion, which omits the matter of treatment, there has been considerable stress laid on all features of the subject presented in the various papers, but there has not been enough emphasis laid on the matter of treating the individual as well as the disease. I believe our strongest weapon in the management of this condition is gaining the confidence of the sick animal and treating him as a human organism. If we lose sight of that, all our therapeutic armamentarium loses much of its force and effectiveness. The fundamental thing to me of chief importance is, first, to gain that man's confidence, to appeal to him from the human side; make him feel that you are going to do something for him, and keep disease out of his mind as far as you can, in order to control him. If you can do that, then you can teach him how to live; teach him how to masticate his food; how to eat and how to do his business. Teach him he can accomplish as much in a more efficient manner by going at things deliberately than he can by going at them like fighting fire. In my own experience I use the expression "fighting fire" when talking to my patients of this type. A most effective weapon is to teach them how to live, and not say too much to them about their disease. They must understand something about it to get their cooperation.

Another thing: In some measure, there are men who decry the refinements of diagnosis or

the technicalities to which we may resort to gain knowledge and help our patients; yet we are in danger of putting our patients in a test-tube and under the microscope and in every Bunsen burner, and are not paying enough attention to them as sick animals. We need color tests; we need urea determinations; we need the total twenty-four hours' urine; we need the total solids. We want to know a whole lot of things, but we are inclined in our present-day methods to get a little bit away from the old-fashioned teachings of our forefathers to use our fingers, our eyes, our noses and our commonsense. I think we ought to go back to them, and just as our President has said, psychotherapy is applicable to some of these cases. If you can take a nephritic in the early stages, when he does not know that he has Bright's disease, I think he might get well with the aid of Christian Science, although I am not a Christian Scientist. But I am willing to concede that if he can be taught by a daily dose of suggestion that he is going to get the desired benefit, he will believe it.

DR. THEODORE POTTER, Indianapolis: It is a little strange, it seems to me, that in our discussion of so-called functional tests of the kidney we have overlooked one of the simplest and most natural methods, and one that is universally available, and that is, putting the kidney under a little strain in an actual way by exercise, not by testing it with various things. For instance, if you have reason to suspect the early stage of Bright's disease, examine the patient's first urine that he passes in the morning after a night's rest, and very frequently you will find it clear from the ordinary evidences of nephritis, albumin, and so on, and during the middle active part of the day the condition of the urine will show up, more or less, or if you have the man under suspicion, have him walk a mile or two miles a short time before he passes urine, then examine the urine, and in that little strain you will find kidney abnormality. It is so simple and so universally applicable it is surprising to me that it has not been mentioned or emphasized.

Another thing I would like to emphasize as being most valuable is this in the attempt at an early diagnosis of Bright's disease: Simply put the ear down and listen to the second aortic sound. I am sure, those of you who have had the advantages of sitting under the teaching of that bright light, the late Dr. Whitacre of Cincinnati, will remember it was a kind of routine expression with him to say that every case of chronic Bright's disease was accompanied by hypertrophy of the left ventricle. When you are hunting for the early stage of Bright's disease listen to the second aortic sound. It means high tension. It means much, of course, before hard arteries in the great majority of cases. It means in that case the development of recognizable degeneration of the arteries. High tension, with an accentuated aortic second sound, always means vascular disease, hard arteries, or disease of the kid-

ney; and in large percentage of cases the cardiovascular picture is associated with nephritis. It is of extreme importance, and it is probably the earliest single thing we can recognize. While in an attempt at an early diagnosis and early recognition of tuberculosis the systematic use of the thermometer for a considerable length of time accurately is perhaps the one thing of most significance, so I would say for the great mass of doctors, one thing above everything else in the laboratory or clinical medicine that is of most universal value in the early recognition of this disease is to listen to the second aortic sound.

DR. McCASKEY (closing the discussion on his part): I have been very much gratified at the character of the papers and the discussions which have followed my own. One cannot help feeling a sense of pride in listening to such work as Dr. Alburger has brought before us this morning, showing in a very striking manner what can be done in Indiana. I feel like complimenting him on the position he took, although he has not read my paper, and I did not read his, so there was no collusion between us.

The discrepancy between the clinical and pathological findings brought out by Dr. Alburger needs no further amplification.

I would like to say a word in regard to the prognosis. I brought this point up somewhat by a mere allusion at various times in the paper, but I would like to say right now with more emphasis, that if we could get hold of these cases early enough, we could cure a large number of them. If we would discharge our obligations to these patients, let them come to us if they are willing to accept our advice and give us opportunities for investigation, so that we may in the majority of cases prevent the development of this condition which is designated Bright's disease.

I was much interested in what the several gentlemen said complimentary of my own paper, and I want to thank Dr. Wynn and Dr. Porter for calling attention to points I did not bring out. In a twenty-minute paper on the "Symptomatology and Diagnosis of Bright's Disease," one can only treat the subject in a cursory manner, and I only attempted to reach or touch the high points.

In regard to the different tests that Dr. Eastman commented on, I am not quite willing to go so far as he does, although I am in accord with many of the things he said, and in the published papers on urea tests you will find evidence of collusion between Dr. Eastman and myself in regard to the relative value of foreign substances and the only physiologic product in the testing of renal function. There is no doubt about it, we get actual standards which apply in a way no foreign substances can. While I find greater discrepancies from day to day and week to week in the constant use of the Rowntree and Geraghty test as a preliminary measure, followed by these other tests for the differentiation, these dis-

crepancies are harder to explain. One thing that has come out is that there is no parallel whatever between the Rowntree and Geraghty sulphone-phthalein test and the maximum capacity of the kidney for urea output. They say there is such a parallel. There certainly is not. Nevertheless, I cannot quite hold with Dr. Eastman to the full extent of discarding the functional tests. The color test I use because it is simple. It only takes two hours, it is an easy thing to do, and it gives me what I call a quick line on the condition—the general condition—of the renal function. I would emphasize again and again, that all these tests must be placed over and against the general physical findings, and after all, the ultimate verdict is one of general clinical judgment, as Dr. Eastman has said. This must be our final conclusion based on what we can get out of these functional tests, which, I believe, must be taken in conjunction with the general make-up of the patient.

Just a word on the selection of a natural or foreign substance for testing renal function. I will refer to Albarran's work. When I was in the midst of these investigations I secured a copy of Albarran's book on functional tests. He discussed all available tests made at that time—phthalein, methylene blue, phloridzin and so on, and the thing Albarran places more reliance on is the polyuric test. His book was written six years ago, and he says the polyuric test had never once deceived him in his estimation. He uses ureteral catheterization. He puts in 300 c.c. of water and gets the urine from each kidney; if that kidney secretes urine frequently, water filtration is possible, and he takes that as a final indication for operating on the kidney. He declares emphatically never once was he deceived by the polyuria test made by ureteral catheterization. Dr. Eastman mentioned the inefficiency of renal function by the use of the renal catheter. All of these factors must be considered, and we have a great many things to mislead us, but they are nevertheless—these tests—absolutely necessary if we are to do the best we can for our patients.

DR. BULSON (closing the discussion): The only point I wish to emphasize is that we have a number of early ocular signs and symptoms which are a part and parcel of what is later diagnosed as general arteriosclerosis or Bright's disease. I have taken the attitude that Bright's disease is simply a manifestation of a general vascular change which we commonly term arteriosclerosis.

Among the early lesions a very important one is the manifestations that occur in the retina. I particularly want to emphasize the importance of a very critical and careful examination of the fundus with dilated pupil and the recognition of the milky white areas and the very small pinpoint spots of white exudation which occur oftentimes before the presence of albumin and casts in

the urine, and before other of the pathognomonic symptoms belonging to Bright's disease. You will find high arterial tension in most cases if you will take the blood-pressure, and in such cases you will discover early retinal lesions. [Question by a member]: "Do you dilate the pupil in making your fundus examinations?" Yes, as a rule. It depends somewhat on the age of the patient. A young person has a pupil large enough to permit of a fairly satisfactory ophthalmoscopic examination. A middle-aged or old person has a smaller pupil and an ophthalmoscopic examination is more difficult and less satisfactory. I have been accustomed for years to make examinations of the fundus without the aid of a mydriatic; but if I want to make a critical examination of the fundus of an eye I dilate the pupil with euophthalmin which has not effect on accommodation. I do not think that any ophthalmologist who wishes to give an intelligent and reliable opinion as to the condition of the retina is justified in giving an opinion on findings obtained by examination with a contracted pupil, and particularly concerning those lesions which must be looked for critically in order to be seen.

MEDICAL CITIZENSHIP *

JAMES B. MAPLE, M.D.
SHELburn, IND.

There never has been a time since Socrates first taught that the true ideal of life is not the advancement of the individual but the advancement of the race as a whole, when as at present so many people were actually seeking the good of the entire mass rather than the unit.

The medical practitioner has long been at the fore in this giving up of self to the furtherance of the universal good. The very nature of our work, the ministry to the moan of pain, the spanking to vigor of that first feeble cry of a new life, the closing of the sightless eyes in death, the voicing of the word of hope, the constant struggle to abate and prohibit disease and suffering in all their forms and manifestations, urges us to put forth every effort to bring about the ultimate good of the human race.

The spirit that animated Christ when he spat on the clay and put the first mud poultice on the eyes of the blind Bartimaeus is the same spirit that animated such men as Lazear and Myers to sacrifice life in fighting yellow fever or rickets in his fight on mountain fever; and it is the same animus which drags the country practitioner from his bed at 2 a. m. of a cold and dismal night, for otherwise he would gladly pay the fee himself that he might remain in his own warm bed.

No mass of men, professional or otherwise, are to-day so in one accord in a fight against the com-

mon evil as are the physicians of this country. Aye, were the ministers of this land so in one accord against evil, the devil would long since have taken large quantities of bichlorid of mercury with suicidal intent.

Thus it is that the question of citizenship is to us as physicians one that is vital; indeed, it is becoming more vital every day.

In the span of a lifetime medicine has ceased to be a mystical hodge-podge of chicken feathers, toadstools, rabbit feet and old-hag charms, and has broadened out on a scientific basis that is ever ready to tell mankind the unadorned truth about his ills and his bad habits and to guide him intelligibly in the way he should live.

Our citizenship, our relation to our fellow man, what we owe to this land wherein we live, the various multiform interrelations of our daily life; in fact, all our activities as physician-in-chief to the great American people, may be divided for the purpose of discussion into three phases of citizenship: political, social and religious.

POLITICAL

Politically, our activities are divided very sharply into do's and don'ts.

Don't work for a political office. I believe it to be almost axiomatic that it is bad business for a physician to enter politics as an office-seeker or an office-holder.

It is likewise bad business for one to seek to be a political boss. The hatred, the enmities, the disappointments, the actual chicanery and corruption in active participation in political life are such as to make it far from desirous for an ideal physician to enter therein.

On the other hand, we are obligated by virtue of our position as protectors of our patients to take an active part in the securing of special legislation looking toward the betterment of public hygiene and sanitation. It is given us because of our medical education to know better than any other class of men what things are needed to best improve the breed and living conditions of the human race. So there should be no shirking of the doing of our level best toward the securing of legislation such as will accomplish the needed reforms. We should watch each session of our state legislatures and endeavor to secure the passage of worthy bills and to defeat vicious ones.

We should lend our aid toward the enforcement of the present pure food and drugs act, and to help secure a revision of it that will be more capable of enforcement. We should endeavor to secure the passage in our national house of such bills as the Owen bill. I believe we should help in a fight to increase the requirements and safeguards of the medical practice act.

* Read before the Second District (Indiana) Medical Society and referred to THE JOURNAL for publication.

When we consider that it is our business to handle human life, we should be ashamed to rest content with any requirements that permit of physicians being turned loose on the unlearned public with anything less than the best obtainable medical equipment. And along this line I think we should ask for an act that would allow three of the members of our state boards of medical registration to be selected from a list of men proposed by the state medical associations. I think that the need of such an act will become more and more obvious in the next few years.

Furthermore, as public citizens, indeed, as a favored group of citizens who are exempt from jury service and from being taken from our own county on civil cases, and who are favored in many ways, it behooves us not to neglect the careful and prompt return of all birth, death and disease certificates.

When it comes to the question of legislation for sanitary and hygienic purposes, we come to a question that will always be one of local interest. The conditions which must be met are usually those which arise in the activities of public, commercial and home life, and are to be discovered usually by the resultant effects they produce on the individual who comes to us as a patient, the victim of his surroundings. The remedy lies in the study of the actual surroundings and habits of the patients and the securing of such special legislation as will improve the patient's environment. In the abating of injurious conditions lies the greatest duty and labor of our public health officials. To them we must look for our leaders, and we should give them our every aid, that much of our present evils of sanitation and hygiene shall be eliminated.

The agitation for the compulsory use of silver salts in the eyes of all the new-born, now a law in Indiana, is a far step in the beginning of a paternalistic government campaign that can only result in more and more care and control of the public life, so that we may reduce to the lowest possible minimum not only the death-rate but the actual rate of sickness itself.

The supreme ideal standing before us to-day is that we may strive to reach the day when preventive hygiene and sanitation and preservative control of the sickroom shall have indeed resulted in a true medical nihilism that will have laid low our present *materia medica* in the grave we have already dug for the incantation of the witch doctor, the blood-letting of the barber-physician and the use of dram doses of calomel every half hour.

SOCIAL

Socially, our duties as physicians lie in two realms: the public and the private.

Publicly, our social duties interweave with our political activities. When we endeavor to regulate the hygiene and sanitation of public buildings and communities we are compelled to back up our individual activities with the force of law. It is only in the last few years, and for many of us not even yet, that we realize we owe a duty to ourselves and the public in this question of hygiene and sanitation of our public buildings and communities.

It is a burning shame and an everlasting disgrace that we, as a body of men who claim an altruistic as well as a commercial side to our endeavors, each day pass insanitary closets, insanitary wells, barbarian slaughter-houses, airtight schoolhouses, public drinking-cups, tubercular sputum on the walks beneath our feet, flies on our bread and clustered about our exposed fruits in the market places, and see the dust of our streets blown into uncovered groceries as they are delivered to even our own homes. Aye, here is an indictment of our earnestness of purpose and of the understanding of our intelligence that should bring to us a realization that we have a work to do, a purpose to accomplish, that will indeed need many a Paul to come over and preach to us the living issues of the preservation of human life.

We must take hold, for who else is there that knoweth to do these things? We must take hold vigorously of all these questions, aiding and abetting our public health officials, and doing our own personal share wherever we can lay hands to do. In our schools, in our churches, in all our places of assembling, in our public streets and in our market places, let us condemn and destroy the unfit and build up that which is safe, sane and sanitary.

Let us investigate the ventilation of our schools, the seats of the scholars and their posture therein, the kind and temperature of the heat supplied, the water that is furnished to drink and insist on sanitary drinking fountains. The law says that all schoolbuildings shall be disinfected. Was yours ever introduced to sulphur or formaldehyd? Did you ever go into a schoolroom and count the number of children who were sitting with their noses in their books for lack of glasses, or who are scolded for misreading work on the blackboard which they cannot see, or whose adenoids, tonsils, turbinates or diseased middle ears are holding them back and making dullards of what would otherwise be intelligent children? We Americans claim that all are born free and equal, with the inalienable right of human liberty, but what chance has the child who is handicapped by uncorrected errors of refraction, adenoids, enlarged turbinates, nasal catarrh and middle-ear disease?

Gentlemen, I say unto you, medical inspection of schools may be paternalistic government with a vengeance, but it is likewise humanitarian Christianity and a duty we owe and must pay to the rising generations that now spend nine months a year for a quarter of their average lives crowded into inadequately built and badly governed schoolrooms.

When it comes to our relations with the private individual who is usually our patient in sickness and our friend in health we enter into the broadest and richest field of our active life. Here we must be leader, teacher and example, practicing what we preach and never afraid to preach the truth. Here we must teach personal hygiene and home sanitation, entering into the daily life of the individual with an understanding broad enough that we can advise without offense and with a simplicity of speech that will carry conviction and secure results.

One of the most hopeful signs in medical life to-day is the passing of the medical humbug. It is no longer necessary or in good taste to throw into our patients a line of buncombe in order to secure their confidence—and our fees. The plain, simple, unadorned truth, freed from all ambiguousness of medical phraseology, is what should be told to our patients that they may live in good health and help us to minimize all the dangers of infectious, contagious, functional and organic diseases.

There is another subject that affects us in both our social and religious citizenship, namely, the so-called social evil. In the limits of this paper there is so little room for the discussion of this world-wide question I can only suggest the pregnant thought that we can do little reformatory good for the patient who confronts us, but we can protect his family, and we must endeavor to find a way to prevent there being any patients. An attitude of indifference toward the patient, a tendency to make light of the trouble, to consider it as the usual thing, if not, indeed, the sign of vigorous manhood—this tendency on our part to laugh the matter off is something we must reform within ourselves.

We do not need to preach morals if we would not, but we can at least preach a conservation of bodily good health which will show venereal diseases in their true light as destroyers of bodily health, as producers of sterility, of divorce, of blind infants and an unending chain of complications of all sorts. In salvarsan we may have a special remedy for syphilis, but let us be cautious in our praise of it lest we lead the world to think they may indulge themselves at pleasure since the little fear they have held is now removed. It is splendid to hold out hope of cure

to these patients, but how much more glorious would it be to control, limit or eliminate the causal factors in these diseases.

Did you ever stop to think that if we as physicians spoke of gonorrhea with the same tone of voice that we use in speaking of tuberculosis, that by that factor alone we would immeasurably increase the public respect and fear for this disease, which undoubtedly is as great a curse to the human race? Let us get busy and cease to joke about venereal diseases. We would not joke a patient with a tubercular testicle, but how about the boy with a gonorrheal infection of the same organ?

Opportunity stands at the door and beckons us many calls. Each decade opens new ways wherein we may minister. To-day we find opening to us, ever so little, the need that we teach sex hygiene. The protection of our young men, the chastity of our daughters, is crying out as never before for help. The parents of the present generation are ignorant of what to teach; false modesty seals their lips; prudery forbids others to step in; and yet somewhere the start must be made. Some one must tell the children of to-day the laws of sex in the proper way, that they may understand the way to a clean life. Not blindly following the straight and narrow way, safe because never tempted, but with eyes open, rejoicing in their manhood and womanhood, knowing what the sensations, impulses and desires within them mean. Knowing the way of life, its birth, its living, even its death.

How often have we as physician-friend to the family had to tell the father of the evil disease that was sapping his son's body? How often have we had to break to the mother the sorrowful news of her daughter's betrayal? As you have heard the regrets of the father, as you have seen the tears of that anguished mother, have you not rebelled against society and cursed the prudery which has forbidden us to forewarn and give self-protection to the youth of our land? How many an ignorant youth has hung his self-respect and his bodily health to adorn the neck of the harlot! How many a young girl has made her life a living death because she was ignorant and too trustful! How many an innocent maid has gone to the bridal couch a sacrifice, to lose her contentment of mind and gain pelvic inflammation; all because of the lack of proper teaching and admonition!

To tell the youth of our land to good and you will be happy, is to say, remain ignorant and be damned! Who shall blaze the way? Many are crying out in the wilderness. Sex hygiene is breaking into our high-school courses. Now is the time when we must accept this new responsi-

bility. As physicians equipped to the work we must aid in making plain to children that if they will prosper and be happy they must know not alone what to eat and how to work, but they must know the laws of procreation—that instinct within them that is stronger than life itself.

RELIGIOUS

When we come to consider the purely religious life of physicians we are immediately confronted with the fact that we as a profession are very poor churchgoers. In fact, the percentage of physicians who are active Christian devotees is singularly low. The factors in this are various and many. First in importance in these causal factors stands the attitude of the church itself. Scientifically, the leaders in the churches, be they priests or pastors, are about 400 years behind the times in their tolerance and interpretation of the way practical Christianity should face the application of its philosophic principles and teachings, while, on the other hand, the nature of our work demands that we keep abreast of the very furthestmost wave of scientific endeavor.

No physician likes to sit and listen to any minister expound the gospels in the light of purely philosophical teaching, which he knows will not bear inspection in the light of applied science. Consequently, though we may go to church with the most profound reverence for a supreme force whose workings we see every day about us in our labors, yet when we have listened to a half hour of exposition of His work in which claims are made again and again which we know cannot be true, I say it is no wonder that we leave the house of worship, wondering how a Supreme Being could allow His work to be carried on in such profound ignorance of the very laws He himself has originated.

Again, on the other hand, our studies of the human body quite frequently make materialists of us; we see the mechanism alone and fail to see the genius that produced this same body out of some seventeen chemical elements. Herein our error as physicians is as bad as is the error of the minister who comprehends nothing of the wonderful story that is written in the development of the human embryo. The physician who can comprehend the psychology, physiology, embryology of man, who likewise knows his botany, a little geology, a little zoology, and who riding alone under the midnight stars, after closing some sightless eye in death or opening another in life, and yet cannot feel the throb of his own divinity calling out into the illimitable universe is indeed a personality to be pitied.

Again, the nature of our business often demands that we must work at the time of church

service, and many of us, who are inclined to attend, drift away in our work until we forget that the first day of the week is kept in memory of Him who was and is the greatest Physician of us all!

Christian citizenship is a very personal matter. To affiliate ourselves with some church for the good it may do us in a business way is a sorry thing to do and can result in little ultimate good; but if we become Christians first and church members only as a consequence thereto we will indeed become Christian citizens in truth!

It will do any physician a world of good to read the Gospel with an eye to our own calling. How intimately is the work of Christ bound up in the healing of the sick. Everywhere he went—out in the market place, by the doors of the temple, in the houses of his friends, on the mountain top, and even on that last night in the Garden of Gethsemane He constantly ministered to physical suffering. The greatest Physician of us all, He has left us a precept to follow that will indeed lead us far from dawn to dawn. It should grace our acts and clothe our charity; it should fill us with a love for our labor and a compassion for our fellow man; it should lead us to follow in the glorious footsteps of Him who hearkened to all mankind and refused succor to none, even when He laid down this life to save—and all without price!

We may not all believe in the efficacy of prayer, even if the Book does say "the prayer of faith shall save him that is sick"—but we will at least recognize the value of suggestive therapeutics. And more than this, the church to-day is beginning to awake to modernism and is struggling to keep abreast the times. In the cities more than in the towns the various sub-bodies of the church are seeking the physical betterment of man, and as we likewise are striving to be in the van of all these movements for civic and physical betterment, we will indeed do well to struggle a little harder to find time to help, to struggle a little harder to soften our pessimism for human nature and to meet the hope of the minister half-way that we may save the body and be the soul.

Our calling is to conserve and protect the human body and its life, and our efforts to do this bring us constantly to the front in the fight for civic, moral and physical betterment.

We must be good citizens or we fail in our duty and our labors. Let us endeavor to better our citizenship this year; let us strive to realize our true position in the midst of the world activities about us, so that we may in truth fulfil our highest purpose as men, physicians and citizens, and may our medical citizenship be a leadership and not a following.

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EDITORIALS

HEREDITY IN CARCINOMA

While it must be recognized that mortality statistics, *per se*, must yield decidedly incomplete results as to such factors as heredity in the incidence of carcinoma, yet if these statistics are carefully compiled and added to thorough-going clinical and pathological studies from the larger institutions of the world, a much more accurate idea of the true influence of heredity in this disease could be obtained.

This fact is beautifully brought out by Warthin in a study of the cases examined in the Pathological Laboratory of the University of Michigan from 1895 to 1913.¹ The data given are based on a study of 3,600 cases of neoplasms of all varieties, of which some 1,600 were cases of carcinoma, definitely proven so by microscopic diagnosis. Although every variety of carcinoma is to be found in the material, yet those of the breast, uterus and lip form the greater part of the cases examined. The fact that about 90 per cent. of material was derived from the general population of the state of Michigan, and coming as it does from a state hospital, not a charity institution, makes the data more representative of the general population than would be found in charity hospitals of very large cities. In the latter the difficulty of obtaining a family history from patients is proverbial. To a lesser extent this difficulty was encountered in the present series, although in all but 600 cases of carcinoma some family history was obtainable, though often meager. Despite these handicaps, however, a family history of carcinoma was obtainable in about 15 per cent. of all wherein a family history could be gotten.

Although in the lower animals, such as mice, some experiments have failed to establish a transmission of tumor predisposition following laws of heredity; yet such predisposition in the human species to certain forms of neoplasm, particularly benign neoplasms as fibroma, lipoma, angioma, etc., has long been recognized, and to a less degree

the same has been true in the case of certain forms of sarcoma and carcinoma. Heretofore such predisposition has been accepted by textbooks on pathology without good statistical studies of such hereditary occurrence of these neoplasms.

It is pointed out by the author that such cancer surveys of living patients as were conducted in Germany several years ago can give but little information concerning the family occurrence of neoplasms, because it is practically impossible to trace the genealogy beyond a couple of generations, which affords but scant information for this sort of study. As pointed out by Levin, unless the total number of descendants can be estimated there would be little accurate information obtained as to the relative incidence of the disease if only the carcinomatous individuals were recorded.

From a rather complete study of the histories of five families, Levin was able to show a particular susceptibility on the part of males toward cancer of the intestines and of females for cancer of the breast. While there was no numerical increase in the incidence of cancer in these families over that of the population as a whole, yet he did establish the occurrence of so-called "cancerous fraternities," a fraternity wherein one or more members suffered from cancer with a history of cancer either on the maternal or paternal side. That is, a cancerous fraternity represents the union of two germ-plasms, each of which is characterized by the presence of germ-cells non-resistant to cancer.

Out of Warthin's material, four families gave complete records of the descendants of a cancerous grandparent, and in these the incidence of cancer is so striking that it can only be interpreted as showing inherited susceptibility to carcinoma. Graphic representations of these families are made, a study of which reveals the striking certainty of the ultimate appearance of the disease in the off-spring of these carcinomatous ancestors.

The more frequent occurrence of the cancerous fraternities is accounted for by the relative ignorance of the average run of the American population concerning the family history, save for its immediate members. Indeed, the majority do not know the cause of death of their grandparents. Of the total series, twenty-nine cancerous fraternities were selected as representatives of the case histories, and in these only two generations are represented in the majority, though in some three and in one four generations are shown. With the normal members of the second

1. Archives of Internal Medicine, November, 1913.

and third generations given, the proportion of cancerous to non-cancerous individuals in two generations is exact. Naturally, the majority of cancerous fraternities occur in small families, in many cases the patient himself representing the end of the family line.

Another striking thing shown from this study was the great prominence of tuberculosis as the most commonly associated disease in cancer inheritance. In fact, the two susceptibilities seem to run together in the family histories studied. Again, a tuberculous ancestry was not infrequently found in families with no family history of cancer back of the present generation. The frequent alliance of these two diseases might be taken as an evidence of a general weakened resistance on the part of the family lines. Next to tuberculosis in association with carcinoma are cardiac and renal diseases.

While the uterus, breast, gastro-intestinal tract and mouth are parts of the body most frequently attacked in the case of family cancers, yet cancer of the lip and rodent ulcer of the face also show a tendency to family occurrence.

A study of the neoplasm material showed an occasional susceptibility in cases of angioma, lymphangioma, fibroma, neurofibroma, lipoma, myofibroma of uterus, adenoma of breast and adenoma of thyroid; but extremely rarely in cases of sarcoma.

From his study Warthin was able to draw the following conclusions:

"1. A marked susceptibility to carcinoma exists in the case of certain family generations and family groups.

"2. This susceptibility is frequently associated with a marked susceptibility to tuberculosis, and also with reduced fertility.

"3. The multiple occurrence of carcinoma in a family generation practically always means its occurrence in a preceding generation.

"4. The family tendency is usually more marked when carcinoma occurs in both maternal and paternal lines.

"5. Family susceptibility to carcinoma is shown particularly in the case of carcinoma of the mouth, lip, breast, stomach, intestines and uterus.

"6. In a family showing the occurrence of carcinoma in several generations there is a decided tendency for the neoplasm to develop at an earlier age in the members of the youngest generations. In this case the neoplasm often shows an increased malignancy.

"7. Because of the difficulty of obtaining complete family records, the laws of inheritance of carcinoma susceptibility cannot be determined accurately, and it is highly desirable that investi-

gations of large family records should be made relative to the occurrence of carcinoma susceptibility. In Levin's study of cancerous fraternities in connection with the whole family history, the percentage of cancerous members in each cancerous fraternity corresponds very closely to the Mendelian percentage of members with recessive unit-characters in a hybrid generation. The same conclusion might be drawn from my cases in certain instances, but it does not seem to me that the data are sufficient for such conclusions. He himself does not consider this conclusion as final. Levin also concludes that resistance to cancer is a dominant character whose absence creates a susceptibility to cancer. While some of my cases show a family history suggesting this, others would indicate a progressive degenerative inheritance—the running-out of a family line through the gradual development of an inferior stock, particularly as far as resistance to tuberculosis and cancer is concerned.

"Levin, as well as Williams, noted the family tendency to specific localization of the cancer, particularly of the uterus in the women, and of the gastro-intestinal tract in the men. This is well shown in my family histories and in some of the cancerous fraternities. Levin concludes that the most important result of his investigation is the fact that it shows the presence of an inherited resistance to cancer growth. I would put it in just the opposite way and say that my observations are important in that they show in certain families an inherited susceptibility to cancer. If the majority of the human race do not show this susceptibility, resistance to cancer is a normal trait of the species. An increased susceptibility becomes, therefore, the abnormal character of importance, and our investigations should be carried along the line of attempting to determine just what lies back of this susceptibility."

THE RÔLE OF MAGNESIUM SULPHATE IN PUERPERAL SEPSIS

Despite any rational theoretical basis for the action of the procedure, favorable clinical results continue to be reported concerning the use of the intravenous injection of magnesium sulphate in the treatment of certain forms of puerperal infection, particularly that due to some strains of the streptococcus.

Perhaps the latest contribution to this subject is the paper presented by James A. Harrar before the American Association of Obstetricians and Gynecologists at their last meeting.¹ In this article reference is made to the work of Dr. Huggins, wherein he observed an increased lym-

1. American Journal of Obstetrics and Diseases of Women and Children, November, 1913.

phocytosis in the spinal fluid after the subdural injection of the salt in the treatment of tetanus. Although no increase of leukocytosis in sepsis was obtained by him, yet the beneficial effect on the bacteremia was so pronounced as to warrant the report of four cases of puerperal streptococemia, apparently cured by the intravenous infusion of magnesium sulphate. Paradoxical as it may seem, a growth of streptococcus *in vitro* was not even inhibited by a weak solution of magnesium sulphate, such as proved clinically efficient. The work was continued by Lobenstine at the New York Lying-In Hospital, who effected a cure in three cases of streptococcic toxemia of the fulminating type and one case of streptococcic bacteremia.

Harrar employed the agent by the intravenous route in nine cases of the severer type of puerperal infection with positive blood cultures in five. He lays emphasis on the fact that while apparently brilliant results follow this form of treatment, yet none of the present well-recognized methods of treatment, such as careful feeding, absolute rest in bed and the open air and sunshine, where possible, and strict avoidance of local or operative interference save with the most evident indication therefor, should not be neglected.

Careful laboratory investigation was made in the attempt to ascribe some definite bactericidal action to the drug thus administered, but without success. So that the rationale of its action still remains an unsolved problem. The author suggests that the salt may act by stimulating opsonin or possibly conduces toward agglutination of the bacteria in the blood.

It has been recognized that successful generations of bacteria ultimately become immune to simple chemical poisons, and this was instanced in the clinical behavior of these cases of puerperal bacteremia under the treatment outlined. They are either cured in the acute stage or carried through into the stage of pyemia where the cure is completed by such other elements as localization and the production of bacteriolysis or by autogenous vaccines.

As for the technic, a 2 per cent. solution of chemically pure magnesium sulphate is mixed with freshly distilled water, filtered and sterilized in half-liter flasks in an autoclave. Hemolysis of red cells is not produced by the solution, nor will it, when prepared in this fashion, produce any temperature reaction in the patient. An ordinary infusion set will answer the purpose, and direct puncture of the vein is preferable to cutting down on the vessel. The veins are made prominent by upper-arm constriction; the needle is inserted obliquely in such a way as to cause a

distinct spurting of the blood from its open end, when the rubber tube of the reservoir with the solution flowing in is rapidly slipped over the shoulder of the needle. With the reservoir held at not more than one foot elevation, 400 c.c. of the solution may be run in in about twenty minutes, but the injection should be made more slowly than the ordinary saline infusion.

While the sensation of heat and slight faintness may be experienced, the pulse usually gains in quality, and a small drink of whisky or aromatic spirits of ammonia will afford sufficient stimulation. An occasional but insignificant sighing respiration is produced, but none of the symptoms are particularly alarming. The injection should be repeated every second or third day, according to the course of the infection as guided by the temperature.

In forty-six cases of puerperal infection with streptococci in the blood, previous to 1910, but three survived, a mortality of 93 per cent. In five cases the positive blood-culture since 1910 and treated by the above-named method, there was but one death, a reduction in the mortality, from 93 to 20 per cent. Though the series is small, the results are encouraging in view of the desperate condition of the patients on whom the method was treated.

In the author's article there are relation in more or less detail the records of fourteen cases with a graphic representation of the temperature and pulse curve.

The author's conclusions are as follows:

"1. In the quantities and dilutions described, magnesium sulphate is absolutely harmless when administered intravenously to women suffering with puerperal infection.

"2. Magnesium sulphate is of more value early in the course of the infection than after secondary localization has occurred. In the chronic cases of secondary thrombophlebitis or pyemia it does not appear to be of benefit. Its action seems to be chiefly on the organisms circulating in the blood.

"3. It shortens the course of the bacterial toxemias in which the bacteria cannot be demonstrated in the blood by culture, and anticipates the establishment of a bacteremia, and finally.

"4. It has reduced our mortality in puerperal bacteremia, especially in streptococemia, the most fatal form of puerperal infection, from 93 per cent. to 20 per cent."

Although as yet the series is decidedly small from which to draw general conclusions, yet the results are so far superior to anything as yet proposed for the treatment of this desperate condition that the profession should feel encouraged to give it a careful and extensive trial at the earliest opportunity.

EDITORIAL NOTES

Anything in the line of physicians' supplies or equipment may be obtained from advertisers in *The Journal of the Indiana State Medical Association*. Patronize these advertisers for it means a continuance of their advertising patronage, and the latter means a larger and better Journal for you.

HAVE you paid your dues?

TO ALL our readers we wish a Merry Christmas and Happy New Year.

YOUR attention is called to the notice from Secretary Combs published in this number of THE JOURNAL.

SINCE publishing in the November number of THE JOURNAL particulars concerning what was thought to be a blackmailing scheme, we have received letters from several physicians saying that they have received exact copies of the letter which we printed. We hope that THE JOURNAL article served a useful purpose in giving a warning.

THE *Journal of the Michigan State Medical Association* shows a little tendency to fall from grace soon after putting on the robe of decency, and it is all a question of commercialism—the desire to have advertising, whether it comes up to a high standard or not. Here is hoping that the members of the Michigan State Medical Association will demand that its journal be clean from cover to cover, even if it is necessary to bar out advertising altogether.

IT is a matter of very much regret that our State Association does not possess a complete file of its own transactions. The earlier transactions were issued in the form of unbound pamphlets, which easily explains their failure to be preserved. So far as is known, there are but two unbroken files of the transactions, one the property of the Indianapolis Medical Society in the medical department of the Indianapolis Public Library, the other in the possession of Dr. W. N. Wishard. During the past three years, the state secretary has been endeavoring to accumulate the back numbers of the transactions, and beginning with 1875 has succeeded with the exception of volumes for 1878 and 1882. If any member can secure these missing copies, the Association will pay any expenses involved, and will inscribe the donor's name in the archives.

THE members of the Illinois State Medical Association until recently had good reason to be proud of their official organ, *The Illinois Medical Journal*. With a change of management came a change in policy, and few will admit that the change was for the better. It is bad enough to appeal to the prejudices and passions of disturbers within the ranks of the medical profession, but worse to court the favor of the pharmaceutical houses that have ceased to have any standing among medical journals that have the slightest claim to decency. *The Illinois Medical Journal* may prosper by carrying objectionable advertising and lowering the ethical and journalistic standard of its reading pages, but we have sufficient faith in the majority of the members of the Illinois State Medical Association, who apparently were deluded when making a change in editorial management, to believe that they will not long tolerate such a journal as is now being put forth.

THE antivivisectionists are having an international congress in this country and indulging in a good deal of intemperate speech, which we can credit to a class of people who permit their enthusiasm to over-balance their sense of honesty and truthfulness. The manner in which such institutions as the Rockefeller Institute are maliciously misrepresented, and the vivisection work carried on in that institution is made to appear as a studied scheme of torture, shows that those who make the charges are wholly unacquainted with the facts and are guilty of dishonesty and falsehood in their fanatical support of a propaganda that does not merit the consideration of thoughtful people who have the welfare of humanity at heart. There is probably no institution in the world to-day where vivisection is carried on in anything but a humane way, and the guinea-pigs, dogs or other animals that are sacrificed through vivisection are not to be compared to the sacrifice of human beings whose lives the medical profession is striving to save through information that can be obtained in no other way than through animal experimentation. The arguments put forth by the antivivisectionists are certainly the most illogical that can be conceived, and we wonder that rational people can be deluded by such sophistry, and particularly when tinctured with misrepresentation and falsehood.

IF you consult a lawyer about a transfer of some lot, or the signing of a deed or a contract or something of the sort involving, let us say, only a thousand dollars or so, he will charge you

from \$25 to any old number. But the lawyer will take his pregnant wife to a doctor for an opinion—which he gets for from \$2.50 to \$10; or his child, whose life or death may depend on the diagnosis and advice given by the physician, and if the doctor charges more than \$10 or \$20 the lawyer will be furious. We forget that it is not our moments of time that we are selling to our patients—or more often giving to them—it is our brains, our thought, our experience, the years of suffering we have felt—and seen—and which we have so heartbreakingly tried to prevent. Perchance it is just because we have suffered so much in ourselves and our patients and feel first for the life of the patient, that it leaves us the poor fools that we are, unable to put a charge on our advice that would in a measure pay us for the hours of work, anxiety and study that have made it possible to give that advice. Who can put a price on life, on health, on happiness? Least of all the man who is called on to save and conserve these priceless things, life and health and happiness; for what is life worth without health—and can there be happiness without it? How often do we see the millionaire enjoying his money and his estate and the physician, who saved to him that life, struggling to pay a mortgage on his humble home. Let us, without becoming unduly commercial, try to learn to put a relative value on everyday things. *California State Jour. Med.*

THE income tax will not affect a large number of medical men, and yet there are some doctors fortunate enough to have an income which makes them subject to the tax. A certain amount is exempt from taxation, \$3,000 for the unmarried man and \$4,000 for the married man, and all over that amount is taxed 1 per cent. There is still much difference of opinion as to how an income should be estimated, and the law is not quite clear on that point, but it is generally conceded that an income subject to taxation is that part of the earnings not required in any form to pay the cost of carrying on professional work, not including personal or family living expenses. Thus it will be understood that included in the exemption is the amount spent for rent, heat, light, water, telephones and care of an office; salaries of any help, such as assistants, stenographers or nurses; amount expended in owning and maintaining automobiles, horses and carriages used in professional work; amount expended on books, journals, instruments and appliances; dues to medical societies and actual expenses incurred in post-graduate work; and

amounts paid as taxes, insurance and interest. In fact, the income tax as it affects medical men applies to the income from any and all sources after any and all expenses connected with professional work have been deducted. Anything coming under the head of living expenses or expense of luxuries or pleasures cannot be included in the exemption. Thus it will be seen that when a doctor pays all of the actual expenses connected with the conduct of his profession, he will be in great luck if he has \$3,000 or \$4,000 left from a year's income, and as the income tax applies only to amounts in excess of this, there will be few who will be obliged to contribute.

To the Members of the Indiana State Medical Association: By this time practically all of the county medical societies will have held their annual meetings and have elected new secretaries or re-elected the former ones. On December 1 I furnished each county secretary with a receipt book to be used in collecting the dues. This is to be made out in triplicate, the original receipt being the property of the State Association, the duplicate being given to the member, and the triplicate belonging to the county society. The county secretaries are instructed to collect the dues for 1914 prior to Jan. 1, 1914, and you will, therefore, be approached on this subject by your secretary. In order that you may not fail to get your membership card, please insist on the duplicate receipt being given to you at the time you pay your dues.

Acting on the instructions received at the West Baden meeting, this receipt states that the member is not in good standing until the dues have been received by the State Association secretary. I have, therefore, warned the county secretaries to mail the dues and these receipts as fast as they are issued, and if you do not get your membership card within two weeks after payment of your dues, please investigate the cause of the delay.

The medical defense feature has increased our membership, and is satisfactory in every particular, and in order to be continuously protected, you should pay your dues on or before Jan. 1, 1914. Of the \$2 sent to the State Association, 75 cents is allotted to THE JOURNAL, 75 cents for the defense feature, and 50 cents for the general expense account. Promptness in paying your dues may save you from a great deal of worry in case you are threatened with a malpractice suit.

CHARLES N. COMBS, Secretary.

IN point of attendance, the Congress of Surgeons of North America, which met in Chicago last month, was a decided success. Over five thousand physicians from every part of the United States and Canada were registered. In fact, the attendance was so large that all of the clinics were overcrowded, and many of those who went to Chicago intending to remain throughout the week found it so difficult to get tickets to special clinics, or to even see anything at any of the clinics, that they returned home early in the week. So far as the medical men in Chicago are concerned, they deserve great credit for the splendid manner in which they took care of a crowd that would have overtaxed the clinical facilities of any city in America. There were clinics in great number and of every variety, but the crowds attending them were so great as to make it impossible for all of the visitors to get as much out of the work as expected. We believe that the Chicago session of the Congress has demonstrated the futility of attempting to do justice to clinics which are intended to draw attendance from all over the United States. It would be far better to divide the attendance into sections and thus give reasonable assurance that all those who attend the Congress will be able to obtain places in the clinics. At Chicago it was the universal expression that fully half of the visitors to the Congress had made a fruitless trip, and had not, in consequence of the crowds, profited to the extent desired. However, the popularity of the plan was manifested by the large attendance, and the experience should emphasize not only the importance of continuing the clinical features afforded by the Congress, but in arranging for such a division of attendance that the clinics will not be overcrowded.

MEDICAL men are being exploited constantly by a class of promoters who know how easy it is to sell a "gold brick" to a doctor. Every now and then one of our readers makes inquiry as to the value of this or that kind of an investment which is offered by some smooth-talking agent who attempts to make the gullible doctor believe that he will have a return of about ten to one on every dollar that is expended. In the majority of instances the expenditure required cannot in any sense be considered an investment, but a speculation—and usually a poor one at that. Mining schemes, the organization of new manufacturing concerns, and many other questionable enterprises should not receive the con-

sideration of doctors, who at the best have no money to throw away. The smooth-talking promoter can always point to his list of "best citizens" and "reputable business men" who are supposed to be investing, but oftentimes the very men whose names carry such weight are themselves victims, or a party to profits in which the ordinary stockholder has no share. As we have frequently said, the doctor who has any money to invest should select stocks or property that are considered safe, though the return may not be great. Real estate, and particularly farm property, is a good investment for any doctor if judgment is used in buying. There are many good stocks of going concerns in the immediate vicinity of every doctor that are worthy of consideration, and the value of which can readily be ascertained. Lastly, if a doctor will take the advice of his banker concerning investments, it is not often that he will go astray, for though the banker himself may occasionally speculate, it is seldom that he will advise his customers to do anything which could not be considered conservative and safe. Glaring promises of big returns from an investment usually get no farther than promises, and the doctor who really wants to save has no business putting his money into questionable enterprises.

A HANDFUL of Chicago disturbers and malcontents, with self-aggrandizement in view, have obtained control of their local and state medical societies through political efforts that would do credit to a band of ward healers. Deception and misrepresentation have played an important part in this successful effort to control, and enough of the rank and file of the membership of the Chicago and Illinois State Medical societies have been deluded to put the disturbers into power. The first thing the patriots (?) did was to change the management of the *Illinois Medical Journal*, and incidentally the policy of that journal. What was formerly a high-class medical journal, ethical and clean in all of its policies, has now become an organ of those who to all appearances are determined to do all they can to retard medical progress in every avenue. Not content in commercializing their journal by lowering the standard governing the acceptance of advertising, the reading pages are open to those who desire to air their personal grievances through attacks on institutions that have received the approval and support of all right-

thinking physicians. We can overlook the vicious attacks on the newly organized College of Surgeons, for we do not have far to go to find the reason for an attack on an organization which demands character and standing of its members, but we fail to understand how the membership of the Illinois State Medical Association can tolerate in their journal the malicious attacks that are made on the American Medical Association and all of its activities. Even the *Bulletin* of the Chicago Medical Society, which is a pea out of the same pod, has changed from a mere bulletin to a bulletin plus defamatory articles and personal communications containing grievances of the disturbers. The greatest stumbling-block to medical progress and to harmony in the medical profession is the jealousy and spite work of a few men who are never satisfied to see the wheels of progress go around. They are objectors on general principles, and it is unfortunate that such men are not properly recognized for what they are worth. However, we have faith in the ultimate outcome of any activity which has truth and justice on its side, and the American Medical Association and all that it stands for will continue to go ahead in the channel that it is now following despite the snarlings of those who live on strife and discontent, and we do not believe that the jealousies, thwarted ambitions and pique of a few Chicago physicians will continue for a very great length of time to be a factor in the control of two societies that include in their membership a very large number of medical men of superior mental attainments, broadmindedness and progressiveness.

DEATHS

C. E. RUTHERFORD, M.D., of Peru, died November 7; aged 82 years.

CHARLES MCBURNEY, M.D., the noted surgeon, died November 7, at Brookline, Mass.

EDWIN KLEBS, M.D., the veteran pathologist and bacteriologist, died at his home in Dortmund, on October 21.

H. J. HOOKER, M.D., an old resident of Vanderberg County, died in Fitzgerald, Ga., November 12; age nearly 90 years.

CHRISTOPHER C. HIATT, M.D., formerly of Winchester, Ind., died in the hospital of the Lafayette Soldiers' Home, November 8, at the age of 83 years.

ISAAC O. BECKWITH, M.D., of Lewis, Ind., died at the home of his daughter in Terre Haute, November 27; aged 87 years. Dr. Beckwith had practiced medicine in Lewis for thirty-five years.

HARVEY W. CORY, M.D., of Marion, died November 23, of malarial fever and complications; age 47. Dr. Cory was associated with Dr. Fixaris in conducting a sanatorium at Marion.

WILLIAM H. WISHARD, M.D., died at his home in Indianapolis on December 9 at the age of 97 years. He was probably the oldest physician in Indiana, and the last surviving member of the organizers of the Indiana State Medical Association in May 1849.

More extended obituary notice will be published in the January number of *THE JOURNAL*.

MORDECAI McDOWELL, M.D., died November 8 at his home in Vincennes from Bright's disease, aged 69 years. Dr. McDowell was born in Steubenville, Ohio, in 1845, served in the Civil War, graduated in medicine in 1869, and began the practice of medicine at Freelandville, where he remained until 1887, when he moved to Vincennes. He served two terms as sheriff of Knox County, and was later elected state senator, serving one term. Dr. McDowell was a member of the Knox County Medical Society.

HENRY M. WINANS, M.D., died at his home in Muncie, November 23, of cancer of the throat. Dr. Winans was born in Xenia, Illinois, in 1855, moving to Muncie with his father in 1859. He received his early education in the Muncie schools, graduating from the Muncie High School in 1873, from the School of Pharmacy of Philadelphia in 1876, and from the Ohio Medical College of Cincinnati in 1880; after which he entered his father's office in Muncie, practicing in that city until a few months ago, when he was afflicted with the disease which caused his death. Dr. Winans was a member of the Delaware County Medical Society, the Indiana State Medical Association and the American Medical Association.

NEWS NOTES AND PERSONALS**GENERAL**

DR. W. A. MOSER of Cloverdale has returned from a short trip to Florida.

DR. GEORGE A. HILL has closed his office at Athens and established one at Rochester.

DR. E. B. MOSER of Tipton, spent the early part of December hunting and fishing at Lake Manitau.

DR. FRANK SMITH of Peru spent some time the first of the month hunting in Northern Michigan.

ON account of a lack of funds, work on the new hospital at Kokomo has been abandoned for the present.

DR AND MRS. C. M. FRANKLIN of Lafayette have returned home from a several weeks' visit in Baltimore

DR. AND MRS. S. M. COTTON of Tipton, who have both been very ill with typhoid fever, are much improved.

THE Holy Family Hospital of Laporte, in a recent campaign, secured over \$1,300 for the support of the hospital.

DR. AUGUST F. KNOEFEL, formerly of Linton, is located in the Trust Building at Terre Haute, and has limited his practice to surgery.

THE Harrell Hospital of Noblesville has recently been purchased by the commissioners of Hamilton County for a new county hospital.

DRS. CLARK ROGERS, H. C. JOHNSON and RODNEY E. TROUTMAN have recently been appointed as members of the city health board of Logansport.

HOPE Hospital, Ft. Wayne, is making a campaign to raise \$150,000 for the purpose of erecting a new building and paying off the indebtedness of the concern.

DR. WM. B. CRAIG of Indianapolis has been acquitted of the murder of Dr. Helene Knabe of Indianapolis, which occurred in 1911, and the crime still remains a mystery.

DR. W. A. GEKLER, Superintendent Indiana State Sanatorium, addressed the patients of the Edward Sanatorium, Naperville, Ill., November 17, on "German Tuberculosis Sanatoria."

DAVISS COUNTY is to have a new hospital, made possible from the Graham heirs, of a piece of property located at Washington, and valued at \$20,000. The building will be equipped at once.

DR. EMIL O. KRUEGER of Michigan City, who for some time past has been connected with a hospital at Calumet, Mich., has recently opened an office in his home town and will practice medicine there.

DR. W. A. SAMUELS of Orland has purchased the practice of Dr. D. H. Harrison at Butler, Ind., and took possession on December 1. Dr. Harris has gone to St. Louis, Mich., to take charge of a sanatorium.

DR. THOMAS J. REDDEN has changed his location from Jolietville to Augusta, Ind., and has opened an office at that place. He has also opened an office in Indianapolis, with afternoon hours only, and will devote his time to the practice of internal medicine.

At a recent meeting of the Delaware County Medical Society, the following officers were elected for the year 1914: president, Dr. D. M. Green; vice-president, Dr. C. M. Mix; secretary-treasurer, Dr. H. D. Fair; third member board of censors, Dr. Clay A. Ball.

THE Plymouth Hospital has been closed and the building will be devoted to the uses of the Plymouth Sanitarium. The hospital has been conducted during the last year at a loss of \$1,000, and this indebtedness has been assumed and provided for by the sanitarium.

DR. E. B. MUMFORD of Indianapolis has gone to Boston to serve six-month internship in the surgical department of the Children's Hospital, giving special attention to orthopedic and general surgery of children. Following this, he will go to New York City for further study along this line.

FROM the frequent accounts of the prowess of certain physicians one would judge that press agents are again an adjunct to some doctor's offices. It's queer that those men do not become Jerry to the fact that they fool no one but themselves. Even the public is wise to this method of "ethical" advertising.—The *Bulletin* of the Lake County Medical Society.

THE Union District Medical Association has issued a pamphlet in memoriam to Dr. J. E. Morris as a part of the proceedings of its ninety-first semi-annual meeting. Dr. Morris was one of the charter members of the Association, and at the time of his death was its president, having been elected to that office for the third time. He was 89 years old at the time of his death.

THE AMERICAN COLLEGE OF SURGEONS

THE first convocation of the college was held in Chicago during the week of November 10-15. Sir Rickman Godlee, President of the Royal College of Surgeons, officiated at the opening. It was an unusual occasion, and the meetings were attended with becoming ceremony.

The fellowship was conferred on more than 1,000 men and others will be admitted later.

Surgeons invested with fellowship were required to sign the following pledge, the violation of which made members liable to expulsion:

I pledge myself to pursue the practice of surgery with self-restraint and to place the welfare of my patients above all else; to advance constantly in knowledge by the study of surgical literature, the instruction of eminent teachers, interchange of opinion among associates, and attendance at important societies and clinics; to regard scrupulously the interests of my professional brothers and seek counsel when in doubt of my own judgment; to render willing help to my colleagues and to give freely my services to the needy.

Moreover, I pledge myself so far as I am able to avoid the sins of selfishness; to shun unwarranted publicity, dishonest money seeking and commercialism as disgraceful to our profession; to refuse utterly all secret money trades with consultants and practitioners; to teach the patient his financial duty to the physician, and to urge the practitioner to obtain his reward from the patient openly; to make my fees commensurate with the service rendered and with the patient's rights, and to avoid discrediting my associates by taking unwarranted compensation.

The conferring of the fellowships was most imposing. The candidates wore the official

gowns, made of dark blue mohair, faced with scarlet and from the mortar boards depended a scarlet tassel.

This program was carried out:

Invocation by Rev. James G. K. McClure, D.D., LL.D.

Introductory remarks by the president, J. M. T. Finney.

Presentation of the Roll of Fellows and Honorary Fellows by the secretary, Franklin H. Martin.

Conferring of Fellowships by President Finney.

Introduction of Honorary Fellows individually by the regents and conferring of Fellowships by the president.

The Fellowship address by Sir Rickman J. Godlee, president of the Royal College of Surgeons of England.

Address by the president.

Adjournment followed by reception of the Fellows and guests by the officers of the college and Sir Rickman J. Godlee.

The officers and board of regents are composed of these well-known surgeons: president, J. M. T. Finney, Baltimore; first vice-president, W. W. Chipman, Montreal; second vice-president, Rudolph Matas, New Orleans; general secretary, Franklin H. Martin, Chicago; treasurer, Albert J. Ochsner, Chicago.

Board of Regents: George E. Armstrong, Montreal; George E. Brewer, New York City; Herbert A. Bruce, Toronto; Frederic I. Cotton, Boston; George W. Crile, Cleveland; J. M. T. Finney, Baltimore; William D. Haggard, Nashville; Edward Martin, Philadelphia; Franklin H. Martin, Chicago; Charles H. Mayo, Rochester; Robert E. McKechnie, Vancouver; John B. Murphy, Chicago; Albert J. Ochsner, Chicago; Harry M. Sherman, San Francisco; Charles F. Stokes, U. S. N., Washington.

The question has been asked, What is the American College of Surgeons, why it should be, what does it intend and what has it done?

American surgery at its best is the best surgery of to-day, but the average of surgery in this country is not only far below this standard, but below even a reasonable standard. This condition of affairs is largely the result of general failure to appreciate the qualifications needful for good surgery. The very fact that surgery has so advanced in recent years has tended to loss of perspective. Just because the art has advanced, its practitioners must be held to a stricter accounting of fitness and of results attained.

The time seems ripe for something like a standardization of surgery—some understanding of the responsibilities of surgical work, some rec-

ognition of the difference between surgical work and medical practice, some definition of the special training and experience that a medical man should have before he undertakes the responsibilities of the graver operations of modern surgery. The American College of Surgeons is simply the expression of an attempt to bring about the setting of a standard for surgery in this country, and to work for a gradual raising of this standard. The intent is to establish the standard, to begin with, by recognizing those men now in practice whose training, experience and character entitle them to be considered specialists in surgery or in the strictly surgical specialties. This choice is based alone on individual fitness.

The college is fortunate in its absolutely democratic origin. In November, 1912, at the session of the Clinical Congress of Surgeons in New York—a democratic, non-selective body of men having no cohesion save their common interest in surgery—it was voted that the presiding officer appoint a committee to consider the feasibility of such a college.

Ten of those present, representing all parts of the country, and Canada, were appointed. After consideration, this committee presented its plans to representative groups of active surgeons in a score of large cities in various sections of the country, and as these plans met approval, 350 men, from all the larger cities of the United States and Canada met the committee in Washington in May, 1913, organized the college, adopted a constitution and by-laws, elected officers and laid out plans for the future.

Much of the work of the college was vested in a Board of Regents, fifteen in number, elected at that time. In the selection of candidates for admission the Regents are supported by a Central Committee on Credentials, with separate subcommittees for each state and province. The movement met with gratifying interest.

It is the belief of the originators that the college in time will result in the formation of a body like the Royal College; in time the standard set will be more definite and will tend to rise steadily. No standard of academic examination could be applied to those now in active service.

There has been criticism and there will be more. There have been two special points of attack. It has been claimed the college is to be a "Guild." This may be so in a sense, but it will always be an open guild, open to all who can show fitness. The second point of criticism is because it excludes men who, though not specialists, are doing good work in surgery. There are such men, the failure to include them means

that they are not, with few exceptions, the men best fitted to do the work in raising the standards that this college has set for its task.

As for the practitioner of medicine, it is believed the action of the college will help him to gain once more the position which is not always granted him to-day, that of the trusted adviser of the family. He will be the gainer if his patients learn not to demand work of him outside his chosen field. The field of medicine offers a field not smaller or less worthy than that of surgery.

The college has taken up one evil, so rampant in certain states as to threaten the standing of the profession as a whole, that form of commercialism known as fee-splitting. The college will not knowingly select for, or retain within, its ranks any one who practices fee-splitting, directly or by subterfuge. The American College of Surgeons stands for high ideals and it is an institution that will be permanent.

The Clinical Congress of Surgeons of North America was held during the same week and Chicago surgeons fairly outdid themselves in the wealth of clinical material presented.

The Congress, in enthusiasm and numbers, surpassed its predecessors.

Dr. John B. Murphy of Chicago was elected president of the Congress, with Dr. George E. Armstrong of Montreal, vice-president; Dr. Franklin H. Martin of Chicago, general secretary; Dr. Allen B. Kanavel of Chicago, treasurer, and A. D. Ballou of Chicago, general manager.

The Congress accepted the invitation of Sir Rickman Godlee, Sir Arbuthnot Lane and Dr. Herbert Patterson to hold the next congress in London, in July, 1914.

CORRESPONDENCE

A LIVE MEDICAL JOURNAL

St. Anthony's Hospital.

EFFINGHAM, ILL., Dec. 1, 1913.

To the Editor:—I am not given to puffs at all—detest them in many ways—but I want to commend your good work as shown in THE JOURNAL of the Indiana State Medical Association. I must say you are giving your members a very live and useful publication—one I enjoy reading every month. There are a great many state journals inexcusably poor, but I can only tell you how I appreciate yours in a great many ways, and I am sure your membership must also.

Very truly yours,

F. BUCKMASTER, M.D.

SOCIETY PROCEEDINGS**INDIANA STATE MEDICAL ASSOCIATION**

WEST BADEN SESSION, SEPT. 25-26, 1913

MINUTES OF MEDICAL SESSION

Tuesday, Sept. 25, 1913

The section was called to order by the Chairman, Dr. F. B. Wynn, Indianapolis, at 2 p. m.

Dr. Fred F. Terflinger, of Logansport, read a paper entitled, "The Need of a State Detention Hospital for the Early Diagnosis and Treatment of Acute Mental Diseases."

Dr. D. C. Peyton, of Jeffersonville read a paper entitled, "Crime as an Expression of Physical and Mental Inferiority."

These two papers were discussed together by Drs. Sterne, Hurty, Brayton, Ketcham, Board, McCormack, Wynn and in closing by the authors of the papers.

Dr. G. W. McCaskey, Fort Wayne, was elected Chairman of the Medical Section, and Dr. A. B. Graham, Indianapolis, Secretary.

Dr. Albert E. Sterne, Indianapolis, moved that a committee be appointed by the incoming president to investigate the practicability of establishing a State Detention Hospital.

Motion seconded and carried.

Dr. James B. Maple, of Shelburn, read a paper on "Care and Treatment of Pneumonia." Discussion deferred until next meeting.

September 26, 9 a. m.

Dr. Maple's paper was discussed by Drs. McCaskey, Brayton, Bennett, Dodds, and discussion closed by the authors of the paper.

Dr. A. B. Graham of Indianapolis read a paper entitled "Colonic Alimentation," which was discussed by Dr. Brayton and in closing by the author of the paper.

Dr. Will Shimer of Indianapolis followed with a paper entitled "The Relation of Typhoid and Paratyphoid Fever," which was discussed by Drs. Brayton, Sterne, Abbott, Alburger, Dodds, Beall, McCoy, and the discussion was closed by the essayist.

Adjourned.

The following list of those who have paid Association dues between Nov. 1 and Dec. 1, 1913. Errors in name or address should be reported to Secretary Combs, giving number of the membership card in order to facilitate prompt detection of the error on the membership records. This list as published is included on the mailing list of THE JOURNAL, and any member whose name appears on this list and who does not receive his JOURNAL is requested to write for duplicate copy:

| NAME AND ADDRESS | COUNTY SOCIETY |
|--|----------------|
| Roy Egbert, 2601 Roosevelt Ave., Indianapolis. | Marion |
| C. E. Stephenson, 1715 Prospect St., Indianapolis | Marion |
| J. M. Berauer, 1355 Madison St., Indianapolis. | Marion |
| Ross Ottinger, Newton Claypool Bldg., Indianapolis | Marion |
| Orvall Smiley, Newton Claypool Bldg., Indianapolis | Marion |

| NAME AND ADDRESS | COUNTY SOCIETY |
|---|----------------|
| O. W. Ridgeway, Cor. 16th and New Jersey Sts., Indianapolis | Marion |
| M. H. Hostetler, Grabill | Allen |
| P. C. Travers, South Bend | St. Joseph |
| Arthur G. Tuller, South Bend | St. Joseph |
| A. E. Gilster, South Bend | St. Joseph |
| H. L. Cooper, South Bend | St. Joseph |
| J. E. P. Holland, Bloomington | Monroe |
| W. L. Thompson, Morresville | Morgan |
| V. A. Magenheimer, Morresville | Morgan |
| W. F. Johnson, Hume-Mansur Bldg., Indianapolis | Marion |
| N. H. Manring, Elwood | Madison |
| S. B. West Lake, E. St. Louis, Ill. | St. Joseph |
| J. O. Garrigus, Terre Haute | Vigo |
| J. B. Maguire, Terre Haute | Vigo |

INDIANAPOLIS MEDICAL SOCIETY

Meeting of Oct. 28, 1913

Meeting called to order by Dr. Ferguson. In absence of secretary Dr. Warfel was appointed to act as secretary pro tem.

The following proposed amendments to constitution and by-laws were read by Dr. Hood:

Amending constitution, Article VI, by substitution therefor the following:

Article VI.—Funds and their expenditure:

Section I.—The sources of funds for the society's various uses shall be the annual dues of the members thereof, and may be additionally from contributions deemed worthy of acceptance by the society, and from special assessments against its membership, by the society.

Sec. 2.—Funds shall not be expended except by a "majority vote" of the society in session regularly assembled, and as may be provided for in the by-laws of this society to facilitate the current business thereof. Provided, however, that no expense be contemplated for any purpose other than to promote the welfare of this society and that of the medical profession, and that all expenditures shall be made by countersigned checks.

Amending by-laws, by substitution:

Chapter 4, Sec. 2. Beginning of last sentence thereof to read as follows:

It shall be the duty, also, of the council to make and complete any and all arrangements, extending to and including the expenditure, by countersigned check only, of whatever amounts of money may be deemed needful by that body, for the current business and meetings of the society. Then follows, "Audit all accounts and transact all of the business of the society not otherwise specified."

Amending by-laws, by substitution:

Chapter 3, Sec. 4. Last paragraph, excepting last sentence thereof:

He shall receive and properly account for all moneys due this society, and shall disburse the same, only in accordance with the provisions of the constitution and by-laws of this society.

He shall furnish a copy of the minutes of the meetings of this society to the JOURNAL OF THE INDIANA STATE MEDICAL ASSOCIATION, and the *Indianapolis Medical Journal*.

He shall receive as recompense for his annual services \$300, the same to be paid in equal installments at the conclusion of each month of his tenure of office.

He shall provide, at the expense of the society, a bond of \$1,000, said bond to be satisfactory to the council, and to be held by the chairman thereof.

These amendments are proposed by the council.

The program of the evening was then opened.

Dr. J. Rilus Eastman read a paper on "Membranous Pericolitis in Children."

Pericolic membranes, or pseudo-peritoneums, present rather definite variations in structure, form, position and relations. However, a correct classification of these formations can hardly be made with our present insufficient and disconnected data relating to their nature and origin. For the convenience of study, these anomalous membranes may be divided as follows:

Group 1. These peritoneal sheets or ribbons which, because of their position and attachments, seem to represent exaggerations of normal anatomic folds or ligaments, for example:

(a) Those representing an exaggerated or modified form. The phreno-colic ligament of Toldt; costa-colic ligament; hepato-colic ligament; nephro-colic ligament, etc.

(b) Those representing in an enlarged or modified form. The bloodless fold of Treves.

(c) Those representing in amplified form. The fold Reid (genito-mesenteric), Lane's band.

(d) Those representing in amplified form. The crescentic upfoldings of serosa which divide the space lateral to the ascending and descending colon into peritoneal fossae.

(e) Those representing in amplified form. The attachments of great omentum to colon occasionally resulting in fusion of omental serosa to peritoneum of colon throughout its length.

Group 2. Pericolic membranes which correspond in form and position to anomalous peritoneal folds which appear occasionally in the fetus, as (a) the parieto-colic fold of Jonnesco; (b) the several so-called root folds; (c) nondescript peritoneal folds about appendix and caput coli; (d) adhesions of peritoneum of colon to upfolding peritoneum of its own mesentery (Robinson and Reid).

Group 3. A blanketing of colon by fused anterior and posterior peritoneal laminae of great omentum. The fat of omentum is replaced by an abundance of young parallel coursing blood-vessels, which vessels are disposed as a rule transversely to colon.

Group 4. Membraniform adhesions occurring about colon the result of mild recurring peritonitis often secondary to chronic colitis (Gerster). These are similar to pseudoperitoneums seen occasionally on the broad ligament, fundus uteri and uterine adnexia. Such formations are essentially different from congenital membranes, although the two forms are frequently associated.

Group 5. Changes in peritoneum of colon due to pathology of the circulation, as hyperemia or varicosities (Hertzler).

All of the varieties of pericolic membrane enumerated above have been observed in the fetus, and, whatever the fundamental processes of pathology which cause these fusions and adhesions may be, it seems reasonably certain that these processes are often active

in fetal life, and that all forms of pericolic membranes, with the possible exception of those embraced in Groups 4 and 5, can be traced to fetal fusion.

The comparative infrequency of membranous pericolicitis in young children has been interpreted with some reason as evidence showing that, since extensive membraniform pericolic formations appear only in adult life, such membranes cannot be associated in any way with fetal peritoneal anomalies, but, on the other hand, must, in practically all cases, be consequent on certain causative agencies which, as a rule, do not become operative before maturity.

It is true that membranous pericolicitis has been observed much less frequently in children than in adults, but there are several quite obvious reasons for this. Abdominal operations for all causes are much less frequent in children than in adults. The simple controlled diet of children, their free indulgence in exercise and other healthful habits of living protect them in some measure from the clinical process which pericolic membranes induce. If the clinical process be established in a child, neurasthenia, one of the conspicuous symptoms of pericolicitis, is not always a part of it, therefore the condition may go undiagnosed and unoperated. It is a mistake, however, to presume that membranous pericolicitis does not occur in young children.

With a view to considering the collective experience of men who have large opportunities for observation in this field, and thus perhaps to shed some light on this question, communications of inquiry were addressed to representative teachers of surgery in this and other countries. On examination of the replies it appears that pericolic membranes have been observed during abdominal operations on children by nearly one-half of the surgeons addressed. By some of those the pericolic membranes were assumed to represent congenital sheets or bands as described by C. H. Mayo and Flint. By others it was looked on as a condition secondary to colitis with consequent mild repeated peritonitis, in the sense of Gerster and Pilcher. Others believe the membranes to be due to a combination of causative factors mentioned above. However, all of the following have found membraniform pericolicitis in children under 16 years of age: Roux of Lausanne, Stiles of Edinburgh, Czerny of Heidelberg, Lane of London, Willy Meyer, C. H. Mayo, M. L. Harris, Flint, Binnie, McArthur, Gerster, J. E. Moore, Greenfelder, Summers, Knott, Coffey, Connell, M. F. Porter, Eisendrath, Hertzler, Finney, Sherman, Seelig, Howard Hill, Collins, Cheever, Freeman.

Dr. M. Thorner gave a report of two cases:

Case 1. Patient, aged 24, virgin female, seen by Dr. Thorner twenty-four hours after rupture of left ear-drum by otologist, with free discharge of pus. When first seen, patient in state of collapse. Provisional diagnosis, ruptured gangrenous appendix. Abdomen opened and large amount of serous fluid escaped. Appendix normal. Gall-bladder and pelvic findings negative. Cultures from abdominal fluid and smears from ear both proved to be streptococci. Antigenous vaccine made and used without result, and death from sepsis occurred in seven days.

Case 2. Female; married. Two weeks' hemorrhage following abortion when seen. Very anemic; pulse 140-160 and feeble. Temperature 104. Chills and delirium. Curettage with removal of foul-smelling

debris. Hemoglobin 15 per cent. Transfusion by indirect method decided on because of fear of sepsis. Seven hundred c.c. blood taken from husband. Placed in flask; clot broken up with beads. Filtered through gauze moistened with normal saline solution. Intravenous transfusion followed by chill and temperature 104. Following day temperature normal. Three days later hemoglobin 40. Prompt recovery.

Dr. Paul Coble demonstrated an ether vaporizer designed by himself for the administration of ether in nose and throat surgery.

Dr. W. L. Bryan, president of Indiana University, spoke briefly, expressing appreciation of his election to honorary membership in the society.

Dr. Combs, secretary of the state society, was present and spoke briefly.

Drs. H. O. Pantzer, M. N. Hadley, O. G. Pfaff and Frank B. Wynn discussed the paper and cases.

Dr. S. E. Earp called attention of the society to the recent deaths of Drs. R. Frank Stone and S. E. Crose and moved the appointment of memorial committee. Carried. Chair appointed Dr. Earp, with power to choose two others. Dr. Earp chose Drs. Pantzer and Wynn.

Attendance sixty-one.

Adjourned. FRED WARFEL, Secretary pro tem.

Meeting of Nov. 4, 1913

Meeting called to order by Dr. Ferguson. Number present, 85.

Minutes of preceding meeting read and adopted. Applications of Mrs. Weyerbacher, Wright and Hickson read for first time.

Dr. T. B. Eastman suggested a more roomy application blank, to obviate necessity of crowding writing.

Dr. W. T. S. Dobbs presented a paper. Subject, "Differential Diagnosis of Tuberculosis and Syphilis of the Lungs." Illustrated with stereo-roentgenographs of the chest.

The author gave a synopsis of an extended study of syphilis and tuberculosis of the lungs. Modern medicine requires specific diagnosis of disease with positive proofs in every instance. This means that the individual diagnosis no longer stands unless it is proven by history, biological, chemical and laboratory findings. Old ideas concerning clinical laboratory diagnoses have to a certain extent been curtailed. Old dictums concerning analysis of urine do not conform to pathological condition of kidneys. It is difficult to differentiate various forms of cellular degeneration and to definitely distinguish malignancy from inflammatory degeneration. Tuberculosis and syphilis are tasks for the elect in microscopic pathology. A positive finding from a laboratory standpoint is final, but a negative finding is of no value. We know that our serum tests, Widal, Wassermann, etc., are not trustworthy, because of known instances of error.

The close resemblance of infective diseases in their symptom complex make differentiation difficult. I have carefully considered syphilis and tuberculosis regarding resemblance in their clinical manifestations. These symptoms are so closely related, that many cases of syphilis of lungs have been diagnosed as tuberculosis and patients permitted to die where they should have lived. Numerous observers in pulmonary diseases confirm this belief. The United States army and navy

offers no greater testimony than in its claim of cures for tuberculosis by subcutaneous injections of succinimide of mercury. They realize now that the pathological condition was one of syphilis and not of tuberculosis. There are no definite clinical symptoms which will differentiate syphilis from tuberculosis. Differentiation comes from carefully elicited personal history, minute physical examination, repeated laboratory examinations, and stereographs. History and physical examination leads in determination. Negative laboratory finding with regard to tubercle bacilli, Wassermann reaction, etc., of value. If there is a suggestion of syphilis it can be confirmed by therapeutic test. If syphilis is the cause of the disease, patient will improve under anti-syphilitic treatment. If tuberculosis be the cause, the patient will grow worse under this treatment, because mercury and potassium iodide are not therapeutic indications in tuberculosis. Indeed, I use potassium iodide as a differential test. It is possible at present, considering fallibility of our serum tests, that the therapeutic test together with a close physical examination and personal history, is our greatest aid in diagnosis.

Dr. Max Bahr presented a report of "A Case of Pellagra with Autopsy." The paper dealt with recently aroused medical interest in pellagra in the United States. Various theories as to etiology were considered. The genetic connection between use of disease maize, and development of pellagra has stood without contest until recently. Sambon's theory that pellagra is caused by a protozoal parasite, transmitted by a blood-sucking insect, is as yet not proven. Allesandrini of Rome attributes the disease to presence of silica in colloidal solution. The Illinois Pellagra Commission hold that the disease is due to an infection of intestinal canal and that a diet deficient in animal protein may predispose.

Photographs of patient at different stages of disease were shown together with pathological specimens.

Patient.—Woman, age 39. Admitted to Central Indiana Hospital for the Insane, October 19, 1912. Died July 18, 1913. It is probably first case reported in Indiana with autopsy. Direct etiology could not be ascertained. Corn only entered through the bread and from the same source as that of hundreds of other families. Patient probably also had syphilis as husband had typical secondary eruptions two years previous to marriage. Patient had one miscarriage during first year of married life. Had also positive Wassermann, with negative findings of spinal fluid. Symptoms were cutaneous, intestinal, nervous and mental. Pellagrous rash of brownish tinge, was symmetrically distributed over backs of hands and fore-arms. Skin was edematous in places between which a dark, crusty condition was evident. A year previous patient had had a similar skin lesion which disappeared later. Present skin eruption disappeared a short time before death. Intestinal symptoms, intractable diarrhea, discharging foul-smelling yellow fluid feces. Mental symptoms those of profound toxemia, clouding of consciousness, delirium, disorientation, especially noted in later stages. Pupillary reaction sluggish. Patellar reflexes gone. General hyperaesthesia throughout body.

Autopsy.—Inflammation of mucous membrane of colon, which was studded throughout with numerous minute superficial ulcerous patches of whitish appearance. Brain, medulla and cord showed acute and

chronic changes, with Marchi and Weigert stains. Areas of recent degeneration along borders of pyramids of medulla. Gowers tracts and also the antero-lateral descending tract presented degeneration. Changes were also noted in column of Goll and in anterior horn cells.

Dr. A. W. Brayton reported a case of pellagra now at Indianapolis City Hospital. Is improving under administration of arsenic, quinine, and good feeding.

The question is, where did the disease come from? It is not unreasonable to suppose that Civil War soldiers confined in war prisons and even those not confined at all were sufferers of pellagra and hook worm. At present 30,000 cases of pellagra in the United States and statistics show 33 or 34 per cent. fatalities. Dr. Brayton has seen only four cases in Indiana.

DISCUSSION

Dr. Albert N. Cole: There is much disagreement among good authorities as to frequency of syphilis of lungs. Very many autopsies have failed to show syphilis of lungs. However, when we listen to Dr. Dodds we are inclined to believe somewhat in the frequency of the condition. We have many cases of unexplained obstinate bronchitis which clear up under K. I. and it would be easy to confuse these with syphilis. On the other hand they may be of syphilitic origin. So far as radiographic picture is concerned there is no perceptible difference between syphilis and tuberculosis of the lungs. The subject is too new to be settled. We must rely upon history, finding of tubercle bacilli, physical examination and therapeutic test, in making diagnosis.

Dr. J. A. MacDonald: We are apt to overlook syphilis of lungs. We are finding recently cases of low grade nephritis with a past history of syphilis and these cases improve very much under anti-syphilitic treatment.

We must divide subject into mediastinal and lung syphilis. All cases of mediastinal disease with obstructive symptoms should be suspected syphilis. Therapeutic test is valuable in differentiating. We may have a low-grade pneumonia due to syphilis or tuberculosis or to neither of these. Diagnosis is very difficult. Tubercle bacilli may be found only after repeated examinations. Therapeutic test again most valuable. Mercury gets quicker results than K. I. Case report: Man, age 50. Pain in chest. Right chest retracted. Puncture showed clear fluid. Careful examination showed mediastinal disease confined to anterior mediastinum and sternum. History of lues and positive Wassermann led to the conclusion of syphilis. Repeated sputum examinations had failed to show tubercle bacillus. Deep puncture into small slightly fluctuant nodule discovered on sternum showed tubercle bacillus. Case shows difficulty of diagnosis.

Dr. F. R. Charlton: Believes pulmonary syphilis is relatively frequent. Often overlooked. Visceral syphilis not uncommon and why should lungs be exempt? Of thirty-four cases of nephritis studied, all of which had syphilitic history twenty-eight recovered under anti-syphilitic treatment. Mercury succinimide for tuberculosis was probably only curing syphilis of the lungs.

Dr. A. W. Brayton: Believes majority of syphilis is cured so far as immediate manifestations are concerned. Even under proper application of Hg and KI for four years, there is little danger from tertiary syphilis. These old cases may show a positive Wasser-

mann, but they are not apt to give trouble. With consideration of these only partially cured cases it is not unreasonable to believe in lung syphilis, as we believe in syphilis of other parts of the body. Stanley found two cases in 1,000 autopsies. But as autopsies were formerly done, many of these cases may have been overlooked.

Dr. C. F. Neu: Asked Dr. Dodds as to relative frequency of manner of attacks in syphilis of lungs. Early teaching that it usually was an interstitial pneumonia.

Dr. Dodds (closing): Answers Dr. Neu. From our knowledge now, the interstitial low-grade pneumonia is most frequent form.

Dr. Bahr (closing): In answer to question of Dr. Neu relative to cutaneous manifestations in pellagra: Cutaneous lesions resemble a weeping eczema. It usually disappears before death.

Adjourned.

ARTHUR E. GUEDEL, Secretary.

Meeting of November 11

Meeting called to order by President Dr. Ferguson. Number present, 60.

Minutes of preceding meeting read and adopted.

Applications of Drs. Jeremiah A. Swails, of Acton, and George Bowman, of Indianapolis, read for first time.

Dr. S. E. Earp reported for Committee on Memorial Resolution for the late Drs. Richard French Stone and Samuel Cross. Memorial resolutions for each were submitted and adopted. Copies of resolutions sent to relatives of deceased physicians.

Letter from Dr. D. W. Layman, secretary of Seventh District Medical Society, announcing next meeting of that association was read.

Program opened by Dr. Paul Martin with a paper. Subject, "Hyperthyroidism and Importance of Its Early Recognition." In part the author said:

"Clinical syndrome known as hyperthyroidism, thyroid toxemia, thyrotoxicosis and commonly called Basedow's disease, or exophthalmic goiter. In its later manifestations it is now generally acknowledged result of excessive or perverted thyroid activity. Prophylaxis of development into advanced Basedow's disease, a resultant progressive degeneration, not of thyroid and its associated ductless glands alone, but involving vital organs with irreparable lesions and permanent crippling mainly of heart, kidneys and liver, is of great importance.

"Well developed exophthalmic goiter is easy of recognition. Lesser degrees of thyroid intoxication as we are apt to find in those suffering from an erroneous assumption of some slight nervous ailment, are difficult of diagnosis. It is difficult to differentiate between a beginning Graves' disease and the physiologic disturbance due to a more excessive secretion. Early exophthalmic goiter often diagnosed as neurasthenia, hysteria, dyspepsia, myocarditis, nephritis, etc., with disastrous results. This emphasizes importance of more careful physical examinations of every-day patients. By concerted action of thyroid and its associated ductless glands, the body is constructed, metabolism controlled and a proper physiologic balance maintained.

"Thyroid is leader in these activities, but possesses no sole function independent of its associated glands. Embryologically thyroid is not part of gastro-intestinal tract, but as has been shown, it is an associated sexual gland. Iodo-thyrin is its active principle, with

a high content of iodine. Iodine is absent from other tissues of body. Exhibition of iodine in a doubtful case may provoke characteristic symptoms of Graves' disease. In other goiters iodine content is reduced. Altered chemical structure alone responsible for thyrotoxicosis. All goiters excepting tumors are result of attempt at increased function produced by demand of increased metabolism or result of defective metabolism in thyroid or its associated glands. Increased metabolism of infections, and toxemias, stimulates, as an antagonistic agent, an increased thyroid secretion, which may lead to over-compensation and hyperthyroidism.

"Initial manifestations mono-symptomatic: muscular weakness, fine muscular tremor, nervous instability, excessive perspiration, and early fatigue upon slight exertion. Persistent tachycardia, eye manifestations, blood examination may be of some value in differential diagnosis.

"Only one-sixth of the gland is necessary to carry on its function, securing safety from both destruction by disease and by surgery. This may account for some of the so-called nonoperative cures, in established cases. Pathological process may persist in latent state, to be subsequently aroused with greater severity. It is impossible to determine clinically the exact pathological extent, and to permit the pathology to remain in situ is to assume an unwarranted responsibility. If in early forms, there is no subsidence of symptoms within four to six weeks, operation is indicated. Medical treatment alone at the Massachusetts General Hospital by Mead and Jackson now abandoned. Is now combined with surgical treatment. Best results from Beebe and Rogers serum treatment show 43 per cent. cures. Operative cures 90 per cent. Better surgical results could be obtained if cases were not treated so long before being operated. These cases should be operated before primary gland area is affected, involves still more normal tissue, and before inevitable degeneration of other vital organs in the course of the disease has had a chance to develop."

Dr. G. B. Jackson reported two cases: Congenital goiter, and control of hemorrhage in circumcision wound in infant. Congenital goiter: Bilateral; each lobe size of hen's egg. Isthmus enlarged. Marked dyspnoea for two days, respiration 60-70. Cyanosis marked. At second month symptoms had all disappeared but tumor still visible. After seven months, absolute recovery.

Second Case.—Circumcision in four-days-old babe. After twenty-four hours' bleeding babe was nearly exsanguinated. Dr. Jackson saw case at this time. Horse serum unobtainable, so 500 units diphtheria antitoxin injected. Within a few moments after injection, hemorrhage stopped.

DISCUSSION

Dr. C. R. Sowder: Early diagnosis of exophthalmic goiter is important. Now more frequently recognized than few years ago. Classified symptoms as cited in text-books are rarely found early, except in the very rapid case. Tachycardia alone should suggest hyperthyroidism. Associated symptoms make diagnosis easy. Question of treatment variable. Some operate all cases, some none. These cases if diagnosed early yield to medical treatment. Absolute quiet, rest in bed, ice-bag to tumor and many cases will apparently recover. Dr. Sowder disagreed with statistics cited by Dr. Martin as to medical and surgical recoveries. Surgical

cures should be watched longer before being pronounced cures.

Dr. E. D. Clark: If we are to do anything at all with exophthalmic goiter, we must do it *early*. I am a firm believer in surgical treatment of this condition. If good judgment be used surgical mortality is low. In cases too far advanced for radical surgery, a palliative operation can be done with much relief from symptoms. Then during the existence of improved condition due to palliative operation, radical operation can be accomplished with little risk to patient. In palliative operation, ligates upper poles. Lower pole ligation much more serious. In radical operation, greatest danger, hemorrhage. In several thousand cases in literature, tetany has occurred but eight times. Intraeapsular operation will not permit of injury to parathyroids. In the case that gets to the surgeon, as a rule, medicine has failed. Surgery will cure more cases of exophthalmic goiter than medicine and the rest.

Dr. A. C. Kimberlin: Simple uncomplicated exophthalmic goiter easy of diagnosis. The complicated case, with the absence of classical symptoms of hyperthyroidism, is very difficult of diagnosis. We must be careful not to operate cases not properly diagnosed. In differentiating it from nephritides with hypertension, careful study of fundus will show changes in the nephritic that hyperthyroidism will not produce. Blood examination of little value. Therapeutic test if properly applied is valuable; improperly applied it is useless. The general practitioner should not hold his cases too long before referring them for surgery. Before operating, the patient should be placed in the best possible condition for operation. This is work of general practitioner. Ligation of poles as a palliative measure is extremely good, but care must be taken not to wait too long thereafter for radical operation. Period between operations should not be more than six weeks.

Dr. A. S. Jaeger: We do not all agree on surgery of thyroid. It is easy for the surgeon to become a faddist. I believe that the Mayo clinic is responsible for much promiscuous thyroid surgery. The operation is one that should be well and carefully done. The statistics showing 85 per cent. cures have the percentage much too high, while the reported 3 per cent. mortality is much too low. A goiter operation is a serious thing to contemplate. As for myself I would rather have a patient alive with a goiter than dead without it.

Dr. M. N. Hadley: Many surgeons depend upon coaptation sutures to control hemorrhage. They will not control hemorrhage. We must tie vessels.

Dr. Martin (closing): In reply to Dr. Sowder's discussion, I would say that we both agree that proper selection of surgical cases is of all importance. Having determined an established case of Basedow's disease, however, we would wait until internal treatment had failed before resorting to surgery and would assume risk of allowing vital organs to become involved. The six cases referred to by Dr. Sowder who returned from the Mayo clinic with recurrences soon following, is exactly what happens to these cases when we wait too long. It supports my argument not to delay by giving prolonged internal treatment, and is no argument against surgery at a time when it will benefit, that is early. Direct cause of failure to improve by surgical interference, is effect of long standing toxemia and resulting degeneration of the

heart, kidneys, liver, etc. Even better results than 90 per cent. cures could be attained if cases were not subjected to prolonged medical treatment, during which time they are losing their chance for recovery.

In reference to Dr. Kimberlin's discussion, I believe that I mentioned that tuberculosis and other infections excite the gland to over-activity which is a physiological reaction. It is important to rule out these infections in making a diagnosis. Not only the gland should be examined, but a careful examination of entire body should be made. Blood-count is only confirmative evidence and should never be relied upon to outweigh clinical evidence. Functional hyperthyroidism a result of various causative factors not in themselves operative. They subside with the removal of causative factor as was shown in my case reports.

Adjourned. ARTHUR E. GUEDEL, Secretary.

Meeting of November 18

Meeting called to order by Dr. Ferguson. Number present, 55.

Applications for second reading: Wm. G. McBride and Arthur M. Hetherington.

Letter from Dr. D. W. Layman, announcing for second time the meeting of the Seventh District Medical Society.

Dr. H. C. Parker presented a paper. Subject, "Recent Advances in Ophthalmology of General Interest."

The Smith Indian operation for cataract preferable to older methods, but needs great skill in technique and trained assistance.

Trephine operation for glaucoma a step in advance in chronic glaucoma.

Lachrymal obstruction now operated upon in any stage of the condition, avoiding use of probes.

Frequent irrigations give best results in gonorrhoeal ophthalmia and ophthalmia neonatorum.

Eye grounds often give first real findings of arteriosclerosis and incipient Bright's. Retinal picture of assistance in differential diagnosis of various obscure conditions.

The consensus of opinion is against the "six-weeks' specialist" and wholly in favor of at least a full year under one or several masters.

Refractive errors should be accurately corrected and a case of refraction as carefully referred by the general practitioner as an abdominal case.

Dr. Walter N. Sharp: Case reports. "Two Enucleations Followed by Hemorrhage."

A.—Child, age 3. Accidental perforation of sclero-cornal junction. Sclera lacerated. Saw child half hour after accident. Enucleation advised but refused. Wound dressed. Within the next twelve hours three dressings were soaked with blood. Consented to enucleation. No hemorrhage at operation. After eighteen hours there occurred a severe hemorrhage. Eyelids swollen and oedematous. Close examination of operative field impossible. Hemorrhage stopped with ice applications. Investigation into the family history showed child's grandfather to be a bleeder.

B.—Glaucoma. Man, 65. Operation refused. After two weeks more of intermittent extreme pain, operation consented. Under other enucleation was done. No hemorrhage at time of operation. Because of the sclerotic condition of arteries, a double dressing was applied. Four hours later there occurred a severe hemorrhage accompanied by much pain. Hemorrhage controlled with ice and pressure. Swelling lasted about one month. Cause of bleeding, arteriosclerosis.

DISCUSSION

Dr. Frank A. Morrison: I wish to take up a few relationships between the eyes and general conditions. First, an incorrect position of the eyes will affect the posture and the unnatural posture will predispose to disease. The individual who walks with his head down, to see that way, because of the improper ventilation of the lungs, predisposed to chest diseases.

In the other condition wherein because of improper eye position the patient holds his head back in order to facilitate vision, there is apt to follow pain in back of head or neck. Condition often diagnosed as neurasthenia.

In treatment of gonorrhoeal ophthalmia, too frequent irrigations are apt to abrade cornea. Better treatment, argyrol dissolved in water and then mixed with lanolin and this ointment packed into the eyes.

There are two types of blindness in nephritis. 1. Temporary blindness due to autointoxication. 2. Permanent blindness with retinal involvement.

The serrated pupil of syphilis can hardly be mistaken. Also with the ophthalmoscope there appears quite constantly an indistinct fuzziness about the disc. This may occur before Wassermann will prove positive. This was noted in 150 cases examined.

Dr. A. C. Kimberlin: We overlook, in making our diagnoses, many valuable signs when we fail to examine the eye carefully. The pupils will often disclose conditions upon careful examination that ordinarily pass us by.

Dr. Kimberlin cited a case in which zone of paleness about disc, observed by Dr. Morrison, led to diagnosis of syphilis.

Cited case in child. Right rectus paralyzed. Intracranial pressure probably tubercular meningitis, diagnosed. Diagnosis wrong, as was found when condition apparently disappeared under tonics.

The eye muscles in apoplexy, tabes, insanity, etc., manifest certain regular symptoms which are characteristic.

Examination of fundus is extremely valuable in differentiating between cardiac and renal cases, and thyroids.

Conditions of fundus in nephritis is as reliable or more so in diagnosis as examination of urine.

Dr. W. F. Hughes: The fundus often shows nephritis before albuminuria appears. In a number of acute eye inflammatory conditions in which the etiology was obscure, the condition was finally found to be due to existing pyorrhoea alveolaris.

With regard to operating for glaucoma, that of Maj. Elliott is probably best in spite of fact that there is not infrequently iritis following. Filtration scar gives good results.

Dr. F. C. Heath: Concerning Dr. Sharp's cases. Hemorrhage from enucleation is rare and can usually be controlled with pressure. On Dr. Parker's paper. Experiments with dionin have shown some good results in prevention of progress of cataract. Probably best treatment for ophthalmia neonatorum and gonorrhoeal ophthalmia in adults consists of frequent and free irrigation plus application of argyrol in aqueous solution, with occasional introduction of 1 per cent. silver nitrate. There have been a number of corneal ulcers cured with vaccines.

Dr. W. T. S. Dodds: Demonstrated with illustrations how position of eyes predisposed to tuberculosis. Brought about by constriction of trachea and depression of thorax, lessening respiratory area, lowering resistance of pulmonary tissue.

Dr. Sharp: There is hardly any disease of the body that does not in some way have connection with the eye. Eye specialists should know more general medicine and general practitioner should know more about the eye.

Dr. Parker (closing): It seems that my paper has fallen short of title in dealing with relationship of eye to general medicine, but I wish to thank the discussants for making up deficit.

Adjourned.

ARTHUR E. GUEDEL, Secretary.

FORT WAYNE MEDICAL SOCIETY

Meeting of September 23

The Fort Wayne Medical Society met in regular session in the Assembly Room, with twenty-two members present. No clinical cases.

Paper by Dr. W. D. Calvin: "A Frequently Overlooked Cause of Headache."

DISCUSSION

Dr. Metcalf: Reported a case of a young man, aged 28, who was suspected of having syphilis. Headache began at the angle of the jaw and then radiated to the occiput. It was relieved by salicylates. He spoke of another case of true syphilitic headache which responded to anti-syphilitic treatment. Mentioned Moar-ek's article on indurative headache in the *New York Medical Journal* of March, 1912.

Dr. Benninghoff: This type of headache closely resembles the so-called rheumatic headache, and often shows tender cervical nodes. Ichthyol and massage are often useful.

Dr. McCaskey: Relief by salicylates points to deposits of urates. Referred to Folein's method of determining the amount of uric acid in the blood and his report of reduction of such to 50 per cent. or less by the use of atophan. He reported a case showing relief of symptoms, but no decrease of uric acid by use of this drug. Reported a case of headache supposed to be due to brain tumor, but it did not show such at post-mortem. He still does not know to what the headache was due.

Dr. Morgan: Spoke of a case wherein salicylates given for other rheumatic conditions had relieved headache. Be careful to ascertain patient's tolerance for salicylates.

Dr. Wallace: Asked concerning etiology of headaches associated with menstrual periods. Spoke of the benefits of high frequency currents in "congestive" headaches.

Dr. Calvin, in closing, wanted especially to emphasize the use of massage in this type of headache. It is more effective than all other measures. He referred to an obstinate case which was cured by an osteopath. Many do not show rheumatic conditions in other parts of the body. High frequency has been a disappointment to him in one case. Always examine for these indurations before resorting to more intricate tests.

Referred to "indurative," myalgic type of Edinger, a form brought into prominence by many Swedish investigators and with special emphasis by the osteopath, because of its ready response to massage and manipulation. Supposed to be due to minute indurations or exudations in the muscles at their attachments to the skull, corresponding to points described by Valleix one hundred years ago. The lesion is not at all uncommon and these indurations should be sought

for in all cases of headache, especially of the occipital variety. Treatment consists of well-regulated massage and large doses of salicylates, preferably administered in the evening.

Adjourned.

G. VAN SWERINGEN, Secretary.

Meeting of September 30

Society met in the Assembly Room with twenty-six members present. Meeting called to order by president. Minutes of previous meeting read and approved as read. The meeting was clinical case night in charge of Drs. Metcalf, Beall and Underwood.

Dr. Beall: Case 1.—Roumanian Jew, with indefinite family history. Complained principally of dyspnea. The ova of hook worm were found in the feces. The X-Ray plate of the youngster's chest shows subternal shadow. Three possibilities of this case are (1) congenital heart disease, (2) status lymphaticus, (3) specific disease. After discussing the conditions, Dr. Beall came to the conclusion that the case was one of status lymphaticus. A Wassermann test has not yet been made.

Case 2.—Was one of the beginning tabes dorsalis in female, 40 years of age. She had been troubled with what was termed stomach trouble. This condition was undoubtedly gastric crisis.

DISCUSSION

Dr. Grandy: On general principles I would suggest that a Wassermann reaction be made in this case. The boy has not an enlarged spleen, which he should have in status lymphaticus.

Dr. Morgan: I am inclined to lay more stress on the heart condition in this case, although you cannot hear any murmur, the heart is markedly enlarged. He has adenoids and enlarged tonsils. I believe the removal of these would aid his breathing.

Dr. Weaver: I am at a loss to know how anyone could attribute the shadow in the X-Ray plate as anything but thymus or a submerged thyroid. The plate also denotes hypertrophy of the ventricles. I feel that Dr. Beall is to be congratulated in presenting for the first time a demonstration of status lymphaticus to this Society.

Dr. Calvin: I did not hear Dr. Beall call attention to the scar tissue in the palate and tongue showing former lues. I think the Wassermann test should be made.

Dr. Beall (in closing): We will have a Wassermann done, but even if it were positive, it would not account for his dyspnea. His tonsils do not cause his difficult breathing. The cause is lower down in the chest. The only evidence we have of cardiac enlargement is the X-Ray shadow. We do not know that this shadow is the heart. It may be thymus. We know that the X-Ray already has reduced the size of these glands, and we will give him this treatment and report the case later.

Dr. Weaver: I would like to ask what improvement there has been in Dr. Beall's second case under anti-syphilitic treatment?

Dr. Bruggeman: While this woman has typical tabes, still all her gastric symptoms could not be due to her syphilis.

Dr. Metcalf: This patient of Dr. Beall's has had a lot of pain with her vomiting spells and sometimes she would vomit almost pure blood.

Dr. B. Van Sweringen: This case with the vomiting of blood seems to be tabetic crises. There may be gastric stasis, which accounts for the blood.

Dr. Grandy: I think this case probably has some hepatic cirrhosis which may account for the gastric hemorrhage.

Dr. Weaver: Was the test for occult blood made in the stool in this case?

Dr. Beall: Out of twelve gastric crises cases which occurred in Starr's service, four had laryngeal crises. One had better be slow in making a diagnosis of two lesions in the same individual. Noni says that hemorrhage from the stomach is not uncommon in gastric crises. The result of treatment in this case has hardly been used long enough to draw any conclusion as to the benefit. I believe, however, that there is some improvement.

Dr. Underwood: Case 1.—Mrs. F., age 30; married; one child, boy 14; American housewife. Family history: One brother operated for goiter; a sister has migraine; maternal grandmother and two aunts died of tuberculosis. Person history: She has had all diseases of childhood; chorea at two years, duration of three months; recovered. Health was good until birth of child, following this ovarian trouble, probably pyosalpinx. Ovarian trouble has lasted for six years. Her general health has been good until two years ago. Her present illness: The patient began with cough and vomiting. Complained of severe tickling in throat, or, as she described it, "as though throat would crack." There was a whoop characteristic of pertussis. She vomited first, mucus, later food. She became anemic and lost about twenty pounds in weight. About four months after the attack began, she was taken with severe vomiting spells, with pain of a burning character in the epigastrium and beneath the sternum. Immediately preceding these vomiting attacks, there was a sensation as if pressed in the stomach. The vomitus was a bile-stained fluid. Under the microscope it showed pus with streptococci and staphylococci. Vomiting temporarily brought relief. These severe attacks of vomiting have been recurring at irregular intervals of a week to two or several months. The patient drifted along until February of this year when she again came to my notice. An exploratory incision was advised. Tests made showed the urine negative, the blood negative, testmeal negative. Exploration was made in March of this year. We found a markedly dilated stomach. A gastro-enterostomy was done in the hope of bringing relief. Not much benefit was received. The patient lost her "whoop" and confined herself to a plain, everyday cough. The severe vomiting spells were of less frequency after the operation. Following the operation, the patient was not seen in a professional way until last week, when approached to become a clinical subject. I then learned of other symptoms more recently developed. The last six months she has had pains, usually preceding menstrual period. The pains range from dull in character to sharp, shooting pains in the lower extremities and in the chest. Also drawing, sharp pains in the cervical region and the back of head—this just preceding the menses. Recently there has been free expectoration, purulent in character, and at times blood-streaked. Examination of the pupillary reflexes show monocular loss of accommodation to light in the right eye. Patellar and ankle reflexes are abolished. The cutaneous reflexes are diminished. There is a suggestion of Rhombert's symptoms present. There is a history of

diplopia lasting six months, four years ago. The chest: The area of cardiac dullness is enlarged. The apex is at the sixth interspace to the left of the mamillary line; systolic murmur, loudest at the apex transmitted to the left. In the first interspace, about $1\frac{1}{2}$ inches to the left of the sternal margin is a soft, blowing murmur. The pulse is 88, regular; the blood pressure: systolic maximum, diastolic maximum, pulse pressure, 115 m.m., 85 m.m., 30 m.m. Lungs show dullness, the left apex rales, and blowing breathing; right side negative. Abdomen is negative; appetite good; bowels normal; temperature normal; urine: Sp. Gr. 1.018, acid, no albumen, no sugar, no diacetic acid, no acetone, indican +; sputum: no tubercle bacilli; blood: hemoglobin 90 per cent., white cells 8,600, red cells 4,400,000, polynuclears 47 per cent., small lymphocytes 41 per cent., large lymphocytes 5 per cent., eosinophiles 4 per cent., transitionals 3 per cent; no malaria. Diagnosis is *tabes dorsalis* with laryngeal crises.

Case 2.—Mr. J. W. K., age 50, married, American. Occupation, cigar maker. Family history: Father died at 83, unknown cause; mother died at 38, childbirth: two brothers living, in good health; one brother died at 40 of tuberculosis; one sister, aged 44 (extremely nervous). Patient has had all diseases of childhood (has had throat trouble since childhood). At the age of 28 went West on account of throat. This trouble was relieved after a year or two residence in Western climate. A year or two after going away, he was injured by the falling of an electric light pole on his head; bled at nose and ears; was in bed seven weeks, but was at no time unconscious; his right knee-cap injured. One year later, while walking on the street in San Francisco, apparently in perfect health, he was seized by an attack of vertigo and trembling; had an awful fear of dying. This attack was not recovered from completely for two weeks. He went two years without a serious attack of nervousness, then the attacks returned at irregular intervals. Has gone three years without an attack. Health seemed good. The attack comes on with a sudden peculiar sensation in the epigastrium and pain in the lumbosacral region accompanied by vertigo; pulse is rapid, 120; his hands and feet are cold and clammy; and his expression is one of extreme anxiety. Exercise in the open air relieves these attacks, as does likewise a glass of beer. Attacks brought on by excitement, bad news, or thunder storms. Appetite good; bowels normal; reflex normal; urine normal; and pulse normal. This case is presented for diagnosis.

Dr. Metcalf presented a case of syphilitic headache. The patient is probably developing tabes.

DISCUSSION

Dr. Underwood's first case.

Dr. B. Van Sweringen: This is a very interesting case. There is the heart lesion; monarticular Argyll-Robertson pupil; the apex beat is dislocated; there is a thrill over the left ventricle; there is a systolic murmur transmitted into the axilla, followed by rough murmur which displaces the first sound; has brief spells of haemoptysis, mostly in the morning. I am inclined to believe that this case is a double disease, stenosis and regurgitation of the mitral valve.

Dr. Grandy: The interesting thing about this heart lesion is that it is rather recent. She had no heart lesion in February when I examined her.

Dr. Bruggeman: Tabes in the female sex is not uncommon, but tabes in women presenting symptoms

of this type is. Plenty of prostitutes walking the streets of Berlin have Argyll-Robertson pupils. Syphilis would cause a sclerosis of any heart valve.

Dr. Underwood (in closing): One of the most interesting things in Case 1 was the laryngeal crisis. My original diagnosis in this case was pertussis. Four years ago this patient had diplopia which subsided. I think these attacks of vomiting were gastric crises. Since her operation the crises have not occurred so frequently. Syphilis of the lungs is a rare condition, and a diagnosis of this kind ought not be made so quickly, but I am inclined to think that this patient has a luetic lung.

Dr. B. Van Sweringen: Dr. Dodds, of Indianapolis, in a recent talk with me said he had been doing some work along the line of syphilis of the lung, and finds the condition not so uncommon.

Dr. Beall: In discussing Dr. Underwood's Case 2, says that this patient has Von Graefe's sign of tachycardia, but no tremor. Two or more of the triad of symptoms of exophthalmic goitre are sufficient for diagnosis. This is also a case wherein a great physical injury has been done, i. e., the injury to the head, which not infrequently causes this disease.

Dr. Bruggeman: These symptoms are typical of traumatic neurosis.

Dr. B. Van Sweringen: We must not forget that these symptoms came on following injury. There was possibly a skull fracture in this case. The absence of the loss of consciousness does not prohibit this case from being diagnosed as one of petitial.

Dr. Edlavitch: I think this clinic is interesting from the fact that the diagnosis of specific disease has been made in each case without exhausting all of the diagnostic aids, i. e., a Wassermann ought to be made in every case diagnosed as specific disease.

Dr. M. F. Porter, Jr.: As Dr. Beall has said, there is little hope of benefit from anti-specific treatment in tabetics. Auto-sero-therapy following by the injection of 606 has been tried out in the Massachusetts General Hospital with some success.

Application of Dr. J. R. King presented. Referred to the board of censors.

Bill of Miss Emma Ringwalt for stenography work was allowed.

Adjourned. G. VAN SWERINGEN, Secretary.

DELAWARE COUNTY

The regular meeting of the Delaware County Medical Society was held November 7 in the lecture room of the Muncie public library with President Dr. W. W. Wadsworth in the chair. After the business session, and clinical reports by some of the members present, Dr. I. N. Trent spent a few minutes in a very profitable argument favoring the establishment of a medical publicity bureau in the columns of our leading newspapers; such bureau to be conducted by a press committee; the contributions for publication to be carefully edited by a member of the profession who has had some training in newspaper work. There are many things of a medical nature that the public is not only entitled to know, but really ought to know, and the medical man is the one to impart the knowledge. Oftentimes the written word is more impressive and effective than the spoken word. This press committee should consist of three members; a bright young man, a recent graduate versed in the modern laboratory and clinical methods; and an old man ripe in practical experience who can act as a balance wheel, together with one of clerical ability, preferably the

secretary of the county medical society. A column of the local newspaper should be at the disposal of this committee wherein timely subjects of interest could be authoritatively considered. For instance, during an epidemic of diphtheria the subject of infection could be taken up and an explanation made of the ways it is most commonly spread: antitoxin, its source, its manufacture, its use, its administration and its effects, and recommendation that a physician be asked to see all cases of suspicious sore throat.

Animal experimentation is a worthy topic and a clear presentation of the subject from the modern physician's point of view should be within reach of all whose opinions are likely to be prejudiced by the ardent yet deluded friends of mice and guinea pigs. During August of each year an article on typhoid would do a vast amount of good. A scarlet fever scare might open a way to explain how we happen to have a Rockefeller Institute with an endowment sufficient to enable the scientist to do a work that is benefiting every family in the world. People are clamoring for information but often their only source of supply is patent medicine almanacs and the fraudulent advertisements of quack physicians.

DISCUSSION

Dr. W. A. Spurgeon: One of our (Muncie) daily newspapers makes the proposition that if the Delaware County Medical Society will give the paper its moral support, and make up in some way its financial loss it will exclude the fraudulent advertisements of several notorious practitioners who are now liberal purchasers of space. A well edited column will help to protect the public from the seductive allurements of the pseudo-specialists who solemnly assert that they can and do perform impossible cures, with a "\$10 examination free." Yet, the real way to get the scalp of all blatant quacks is not by depriving him of his advertising space, but to prosecute and punish him for fraud and obtaining money under false pretenses.

Dr. G. W. H. Kemper: A physician has the same moral right to perform abortions as has a newspaper to publish advertisements containing evident falsehoods. I am not in favor of paying any newspaper or company to be good.

Dr. O. E. Spurgeon: A publicity bureau would probably do more harm than good. People now know too much about medicines and their uses. I do not believe it a wise plan to tell all women that the serum being injected into the body of her child was obtained from a horse. If we keep on teaching the public, the physicians will eventually become superfluous. Sporadic attempts to oppose quacks simply increases their business and popularity.

Dr. W. J. Molley: A little space devoted to the correct presentation of pertinent facts would tend to lessen the enormous amount of money wasted on medical frauds, healers, clairvoyants and their cult. I often would like to make public some items relating to our board of health work and would do so if it were not for the objections raised by some members of the profession who seem to see nothing in such articles except personal puff for the writer.

Dr. H. A. Cowing: I wish to endorse the address of Dr. Trent and the comments of Dr. Molley. More of the right kind of publicity is desirable. The editorship of a medical publicity bureau requires a person of rare discretion and discrimination.

Adjourned.

H. D. FAIR, Secretary.

ELKHART COUNTY MEDICAL SOCIETY

The annual Middlebury meeting was called to order in the Town Hall, November 6, 1913, at 2:30. President Kuhn in the chair and thirty-five members and visitors present. Minutes of last meeting were read and approved. Dr. J. O. Walter was unanimously elected to membership. Application of W. Q. Harper, Millersburg, was referred to Board of Censors. Secretary read a communication from Dr. G. W. Spohn. By a vote the Society instructed the secretary to carry to Dr. Spohn its best wishes and congratulation on his convalescence from typhoid fever.

Letter from State Secretary Combs read. It concerned the matter of dues of new members for fractional parts of a year. Motion made and carried that it be left optional with new members as to what time in the year their membership shall begin.

Dr. W. A. Stauffer, Elkhart, presented a paper on "Angina Pectoris." This condition, first described by Heberden, is an arteriosclerotic cardiopathy characterized (1) by paroxysms of sudden excruciating pain over heart which radiates to neck and arm, (2) mental anguish, and (3) frequently sudden death. Locally there is coronary atheroma or sclerotic plaques in aorta at coronary orifices or both. Symptoms: Prodromal dyspnoea, precordial oppression and signs of pulmonary oedema and of the bronchial catarrh. An attack may be incited by muscular effort, mental excitement, chilling and by overloading the stomach. In other cases sudden collapse and death occur without warning. (1) Sudden agonizing pain, as if iron hand is squeezing heart—is best explained by ischaemia of heart muscle from coronary obstruction. Cardiac plexus lying behind aorta enervates this area. Sensation of pain is usually substernal radiating to shoulder, arm or neck. Numbness or hyperaesthesia of arm are frequent. Vasomotor symptoms—pallor, low temperature and profuse sweating. (2) Mental anguish—sense of dying with complete consciousness, immobile attitude, and perhaps inability to articulate. (3) Danger of sudden death. Osler has named the coronary, "the artery of sudden death." Heart's action is variable and unreliable. Blood-pressure in 45 per cent. of cases is below normal and in 20 per cent. is above normal. Nutritional disturbance and lessened physical endurance are common after the disease has shown itself. Dysphagia and gastric symptoms are due to sympathetic participation of pneumogastric nerve. Angina pectoris must be differentiated from cardiac asthma with atheroma, from anginas involving the abdomen or legs, and from pseudo-anginas. Of the latter there are three forms: (1) Nervous pseudo-angina pectoris, (2) vasomotor angina, and (3) toxic pseudo-angina which is often caused by coffee and tobacco. Other conditions to be distinguished from angina are crises of tabes, precordial pain due to brachial neuritis, to vagus involvement or to gout.

Treatment: Per. of amyl nitrite gr.iii for paroxysm. Give patient glonoin gr. 1/100 to chew. Morphine and chloroform used cautiously, and not at all if brain trouble exists. Ammonia, camphor, alcohol or strychnine for cardiac weakness. Digitalis or strophanthus if arterial tension is low. Treat pseudo-angina according to etiology of case.

Dr. D. L. Miller, Goshen, dealt with the general subject of "Arteriosclerosis." Osler's definition, "a general disease of the arteries characterized in smaller vessels by thickening of all the coats and in the larger vessels by gelatinous swelling, necrosis, fatty degenera-

tion and calcification." Condition involves whole circulatory system—not alone arteries, and there are other degenerative changes in vessel walls besides calcification. Etiology: (1) heredity, (2) wear and tear of life, (3) long continued high blood-pressure, (4) and toxæmias. Syphilitic, alcoholic, "cigarette fiend" and gormandized transmit arteriosclerotic tendency to their progeny. The quality of one's arteries and their power of resistance to stress and strain incident to living differ widely and are heritable. Without these vitiating causes, there are vascular changes due only to old age. Use maintains and, in a measure, sustains structure; overuse leads to degeneration. Conditions of modern life lead to high blood-pressure, resulting in arterial degeneration and unseasonable old age. Dr. Miller discussed at length baneful effect on vascular system of modern business and social life. He decries the production and development of athletes, especially in football. He describes symptomatology of "athletic heart" and sounded a warning note against the Spartan trend in athletics of our schools and colleges. Toxæmias are either exogenous or endogenous. Chief exogenous poisons are lead, alcohol, and tobacco. The first two unquestionably do cause arterial degeneration. Tobacco has its strong defenders. Dr. Miller called to witness the "overwhelming evidence on every hand of the degenerative and demoralizing effect tobacco is exerting on the rising generation," and cited experimental evidence that nicotine is poison to vascular system. "Overstimulate the heart's action, overdistend the vessel walls of the rapidly growing young man, then bombard the tender tissues of his arteries with toxic nicotine, and the result is most appalling." Dr. Miller included under endogenous toxæmias those resulting from poisons produced by all forms of acute and chronic infectious diseases, as syphilis, scarlet fever, malaria, and rheumatism. He named the products of "disturbed metabolism" as endogenous poisons and exemplified this class by naming over-eating. Absorption of products of intestinal putrefaction or an accumulation of waste products in the system due to habitual gormandizing will cause a gradual vascular degeneration.

A man is as old as his arteries.

Dr. B. F. Teters, Middlebury: Blood vessel changes in arteriosclerosis: (1) thickening of intima and (2) hypertrophy of media or muscular coat. Vessels show a resulting loss of elasticity. Hirsch explains this as being due to both mechanical and chemical causes. Hypertrophy of muscular coat is a compensatory process. Due to overfunctioning of an organ or set of organs and an increased blood supply, there results an accumulation of toxins in blood. This accentuates the morbid condition (1) by a direct irritant effect upon intima-end arteritis, (2) by stimulating vasomotor apparatus and producing additional peripheral resistance and (3) by poisonous effect through blood on vasa-vasorum. Sajons believes these toxins cause hyper-activity of adrenals, liberate an excess of adrenoxidase in blood, thus produce an inordinate metabolic activity in all blood-vessel walls. These changes produce an obliterative endarteritis and vessel walls supplied by obliterated vasa-vasorum undergo necrosis and then sclerosis. Dr. Teters described Hirsch's experiments with lactic acid. Hirsch claims to have produced characteristic sclerotic lesions by the exhibition in blood stream of dogs of excessive quantities of lactic acid. Dr. Teters then enumerated the chief exogenous poisons and took exception to Dr. Miller's

classification of the toxins of the acute infections with endogenous poisons.

He described symptoms consequent upon nutritive disturbances in various viscera. Determination of blood-pressure should be routine with every practitioner. He enjoined every one to practice moderation in all things and excess in nothing. Iodides and thyroid extract were recommended as remedies for ameliorating symptoms of arteriosclerosis. Dr. Teters reported briefly of a case of pseudo-angina pectoris of neuralgic type.

Dr. P. B. Work, Elkhart: That, in feeling pulse, one does not feel expansion of artery, that the expansion is not discernable to touch or sight, and that compression was made and what felt was the difference between maximum and minimum blood-pressure—these postulates were brought forward by a recent writer. Intermittent claudication may be an important symptom of arteriosclerosis. The patient may, while walking, feel pain and weakness in his legs and have to sit down, rest, and then get up and go on.

Dr. E. M. Hoover, Elkhart: Heredity plays important part in arteriosclerosis. A man and his wife died of apoplexy several years apart. Has a patient, a daughter of this pair, who has a blood-pressure of 220 and 240 and albuminuria without oedema. Another daughter has been blind and partially paralyzed for five years. Whether hypertension is a cause of arteriosclerosis is an open question. Hypertension is a conservative process in course of arteriosclerosis. Hypertension develops in a very few days in scarlet fever. Heart failure and compensatory hypertrophy takes several weeks to develop. Men smoke and eat too much.

Dr. H. W. Eby, Goshen: The eye specialist, by examination of eye grounds, is often first to discover a case of arteriosclerosis. Arteriosclerosis usually begins after forty. Presbyopia usually begins at forty to forty-five. In this condition the lens loses its elasticity and becomes slightly hardened. Concomitant of atheromatous vessels.

Dr. W. B. Siders, Millersburg: Cited case of his classmate, a football player, whose arteriosclerosis was hereditary and not due to his extraordinary exercise.

Dr. I. J. Becknell, Goshen: Reported a case of a man who is a hearty eater and drinker of intoxicants. Has attacks of excruciating pain in precordium. Treats this man as case of acute indigestion. Gives apomorphia and after thorough emesis, he is relieved. Between attacks he is on a special diet and takes glonoin and strychnine. This case has been instructed to carry amyl nitrite with him to use in emergency.

Dr. F. M. Freeman, Goshen: Sclerosis found in vessels of kidneys' veins, arteries, and liver is also of importance. Mechanical and toxic causes of high blood-pressure. Mental or physical over-strain. Alcohol is not considered important in this condition. Hypertension and arteriosclerosis are often confused. The former may either be a cause or result of arteriosclerosis. Dr. Carroll by shifting them, caused the vein to take over the characteristics of the radial artery. Arteriosclerosis can be prevented and relieved symptomatically, but not cured. Hypertension a compensatory reaction. Nitrites should not be used too strenuously. K. I. diminishes viscosity of blood as well as softens connective tissue in vessel walls.

Dr. J. A. Work, Sr., Elkhart: Prevention is of more importance than cure. Temperance in all things, especially in eating and drinking. Physicians should teach more hygiene.

Dr. A. C. Yoder, Goshen: Gives nitrites if blood-pressure is a little above normal. Many people have a normal blood-pressure of 150, 160, 170 m.m. Hg. It is a compensatory condition.

Dr. C. W. Haywood, Elkhart: It must be true that some people are not well equipped as regards circulatory apparatus. Cited case of man with blood-pressure of 240. Warned by his physician that he should abstain from all his previous habits, to no purpose. Another case of aortic stenosis—no regularity to pulse—machinist by trade. Has been leading a quiet life since taken off his job. Hard physical labor but good heredity. Dr. Haywood in his radiographic studies of the chest has noted that cases of incipient tuberculosis have small hearts.

Dr. S. T. Miller, Elkhart: Digitalis in some cases of arteriosclerosis gives good results clinically. Glonoin indicated with high blood-pressure.

Dr. M. K. Kreider, Goshen: Heredity plays great part in cause of arteriosclerosis. Cited case of his mother. Not in favor of other drugs than amyl nitrite.

Dr. G. W. Kirby, Goshen: An excessive smoker with arteriosclerosis due to his smoking is as rare as a man with a rupture Graafian follicle. Germans and Hollanders with all their smoking live to a ripe old age. Hyper-nervous tension is a causative factor in arteriosclerosis. Men without worry or care live to be old.

Dr. C. L. Dreese, Goshen, related subjective symptoms of angina pectoris from experience.

Dr. B. F. Kuhn, Elkhart: Patrick, of Chicago, described some two or three years ago this type of case: Patient who suffered a fainting spell simulating apoplexy, but who is all right next day. Explanation—little arteries in brain were hard and tortuous. The circulation is impeded; one day these arterioles close, circulation stops and a small area of the brain is shut off. After a while collateral circulation takes care of the emergency and the patient is apparently O. K. One school advises drinking nothing but distilled water to keep down lime salts.

Dr. W. A. Stauffer (closing): Work, worry, and excesses age a person more than heredity. The estimate that one-half rate of mortality is due to arteriosclerosis, seems high.

Dr. D. L. Miller (closing): Also thinks this estimate too high. Keep young men away from tobacco till they are mature. Arteriosclerosis not curable. Avoid excesses. Tobacco, overeating and heredity are the big causes of arteriosclerosis.

Adjourned, to the hotel, where a splendid dinner was served.

JAMES A. WORK, JR., M.D., Secretary.

FOUNTAIN-WARREN COUNTIES

The December meeting of the Fountain-Warren Medical Society was held at Williamsport, December 3.

Papers were read at the meeting by Dr. George F. Butler, of Mudlavia, and Dr. Frank B. Wynn, of Indianapolis.

The following were elected to membership in the Society: Drs. E. O. Little, Kramer, Ind., and George S. Baker, Odell.

Officers for 1914 were as follows: President, F. H. Pugh, Vice-President, A. R. Kerr; Secretary-Treasurer, A. M. Sullivan; Censors, O. F. Wellenreiter, F. S. Cuthbert, A. L. Ratcliffe; State Delegate, George F. Butler; District Delegate, T. W. Kelsey.

The next meeting will be held in Attica in March.
Adjourned. A. M. SULLIVAN, Secretary.

LAWRENCE COUNTY

The Lawrence County Medical Society held its regular monthly meeting on November 6. Minutes of the previous meeting read and approved.

Dr. J. B. Duncan mentioned the desire of the Tri Kappa Society to meet with the Medical Society. Motion carried that a committee be appointed to invite the Tri Kappa Society to meet with us.

Dr. E. E. Mitchell gave a case report of a child with hydrocephalus. Discussion by members present.

Dr. O. B. Norman reported a case of a babe born without eyes.

As per program Dr. P. Woolery read a paper on "Common Diseases of the Skin." Discussed by all present.

Adjourned until 1:30 p. m.

Two representatives of the Tri Kappa Society present working in the interest of the prevention of tuberculosis with the use of the Red Cross stamp funds. Motion carried that the Pike County Medical Society cooperate with the Tri Kappa Society.

Paper read by Dr. Freeland on "Ectopic Pregnancy," with report of two cases. Dr. McFarland reported a case in which a mass the size of a fist was in left corner of uterus after delivery. Dr. Sherwood reported a case of acute goiter. Attended patient in confinement in September last, there being no goitre at that time. Two days ago symptoms set in—spasms of glottis, embarrassed breathing, rapid and irregular pulse. Treatment by ice bags and digitalis. Patient improving. Dr. Emery talked of fallacies of Christian Science. Dr. Heitger talked on dysmenorrhea, due to nervous reflex from sensitive area over tuberculum septi and anterior ends of inferior turbinate.

Adjourned. F. S. HUNTER, Secretary.

MADISON COUNTY

Meeting of Nov. 29, 1913

The Madison County Medical Society met in regular session in the Public Library in Anderson, November 25th, 1913, at 4 p. m. Vice-President Newlin in the chair. Fourteen members present. Minutes of previous meeting read and approved.

Dr. Doris Meister read a paper on "Stridulus Breathing in Children." She gave as some of the cause rachitis, adenoids, lymphatic diathesis, heredity and enlarged thymus; in the discussion several cases of enlarged thymus were reported.

Dr. W. R. Sparks read an excellent paper on "The Relation of Blood-Pressure to Disease." The discussion brought out some interesting cases and their treatment.

Adjourned. ETTA CHARLES, Secretary.

MARSHALL COUNTY

Meeting of October 23

The Marshall County Medical Society met in regular session October 30 at Plymouth.

Three excellent papers were read: "Management of Abnormal Labor," Dr. Tallman; "Forceps in Labor," Dr. Eidson; "Asepsis in Labor," Dr. Hardy.

Every man on the program was present and ready with his paper and a good number of the members were present. These factors made the meeting one of the best of the year.

Adjourned. A. A. THOMPSON, Secretary.

Meeting of November 26

The Marshall County Medical Society met November 26 at 1:30 p. m. at the Plymouth city hall. After roll call the minutes of the October meeting were read and approved.

Dr. Jeffreys was granted a transfer.

It was decided that the society should help furnish a room in the new public library and that future meetings of the society be held in the same.

Dr. Nusbaum of Bremen gave an illustrated lecture on "Lacerations of the Perineum," which was very practical. Open discussion of Dr. Nusbaum's paper.

Adjourned. A. A. THOMPSON, Secretary.

PIKE COUNTY

The Pike County Medical Society met in regular session at Winslow. Minutes of the previous meeting were read and approved.

The first paper on the program was by Dr. T. W. Basinger on Psycho-Therapeutics vs. Christian Science Healing, which subject was well handled, the essayist portraying why Christian Science had found lodgement in the hearts of its many followers, and that it was here to be reckoned with. The discussion was opened by Dr. De Tar, of Winslow.

Dr. G. Q. Ireland read a paper on The Treatment of Typhoid Fever, discussion of which was opened by Dr. T. R. Rice of Petersburg and later made general.

Dr. Taylor, of Velpen, then presented a paper on "Narcotic Poisoning and Death from Coal Oil Poisoning"; quantity taken not known; resulting conditions being dyspnoea, cyanosis, and death. In opening the discussion, Dr. H. M. Baker, of Stendall, said that he was very doubtful as to the narcotic effects of coal oil unless it contained some foreign substance, since he had used it quite extensively with no unfavorable symptoms, yet he conceded that certain persons might be susceptible to narcotism from its use.

Dr. D. W. Bell, of Winslow, read a paper on "Ophthalmia Neonatorum," and made it very impressive that physicians should be on the alert to protect newborn infants' eyes. Discussion opened by Dr. J. F. Kime.

Three new applications were made for membership in 1914, which brings Pike county up to the largest membership in many years, and bids fair that Pike will soon be a solid phalanx with the medical profession. This meeting was most enthusiastic and interesting, and the best feeling of good fellowship of any recently held in the county.

Adjourned. E. S. IMEL, Secretary.

THE TRUTH ABOUT MEDICINES

This department presents, in concise form, facts about the composition, quality and value of medicines. Under "Reliable Medicines" appear brief descriptions of the articles found eligible by the A. M. A. Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies." Under "Reform in Medicines" appear matters, tending toward honesty in medicines and rational therapeutics, particularly the reports of the A. M. A. Council on Pharmacy and Chemistry and of the Chemical Laboratory.

The text on which these abstracts are based may be obtained from the American Medical Association, 535 N. Dearborn Street, Chicago, Ill.

RELIABLE MEDICINES

Articles found eligible by the Council on Pharmacy and Chemistry for inclusion with "New and Nonofficial Remedies."

AGGLUTINATING SERA FOR DIAGNOSTIC PURPOSES.—These are the sera of animals (horses) immunized against various bacteria. For use a solution is added to a suspension of the bacterium to be tested, and after incubation for a certain period the mixture is examined.

AGGLUTINATING SERUM FOR THE IDENTIFICATION OF BACILLUS PARATYPHOSUS A.—Intended for use by the macroscopic method. H. K. Mulford Co., Philadelphia, Pa.

AGGLUTINATING SERUM FOR THE IDENTIFICATION OF PARATYPHOSUS B.—Intended for use by the macroscopic method. H. K. Mulford Co., Philadelphia, Pa.

AGGLUTINATING SERUM FOR THE IDENTIFICATION OF BACILLUS TYPHOSUS.—Intended for use by the macroscopic method. H. K. Mulford Co., Philadelphia, Pa. (*Jour. A. M. A.*, Nov. 1, 1913, p. 1630).

ANTISTREPTOCOCCIC VACCINE (SCARLATINA PROPHYLACTIC).—For description of Streptococcus Vaccine see N. N. R., 1913, p. 226. The Abbott Alkaloidal Co., Chicago.

STREPTO-BACTERIN (SCARLATINA BACTERIN) POLYVALENT.—For description of Streptococcus Vaccine see N. N. R., 1913, p. 226. The Abbott Alkaloidal Co., Chicago (*Jour. A. M. A.*, Nov. 15, 1913, p. 1811).

SILK PEPTONE "HOECHST."—Peptone made from silk and standardized to a uniform rotatory power. It is used for the detection of peptolytic ferments, either by changes in optical activity or by the precipitation of tyrosin produced by its digestion. Farbwerke Hoechst Co., New York (*Jour. A. M. A.*, Nov. 15, 1913, p. 1811).

ACNE-BACTERIN POLYVALENT.—For description of Acne Vaccine see N. N. R., 1913, p. 221. Abbott Alkaloidal Co., Chicago.

COLI-BACTERIN POLYVALENT.—For description of Bacillus Coli Vaccine see N. N. R., 1913, p. 221. Abbott Alkaloidal Co., Chicago.

FRIEDLANDER BACTERIN POLYVALENT.—For description of Friedlander Vaccine see N. N. R., 1913, p. 222. Abbott Alkaloidal Co., Chicago.

GONOCOCCUS-BACTERIN POLYVALENT.—For description of Gonococcus Vaccine see N. N. R., 1913, p. 223. Abbott Alkaloidal Co., Chicago.

PNEUMO-BACTERIN POLYVALENT.—For description of Pneumococcus Vaccine see N. N. R., 1913, p. 224. Abbott Alkaloidal Co., Chicago.

STAPHYLO-ACNE-BACTERIN POLYVALENT.—For description of mixed vaccines see N. N. R., 1913, p. 224. Abbott Alkaloidal Co., Chicago.

STAPHYLO-ALBUS-BACTERIN POLYVALENT.—Abbott Alkaloidal Co., Chicago.

STAPHYLO-AUREUS-BACTERIN POLYVALENT.—Abbott Alkaloidal Co., Chicago.

STAPHYLO-BACTERIN (HUMAN) ALBUS-AUREUS-CITREUS.—For description of Staphylococcus Vaccines see N. N. R., 1913, p. 225. Abbott Alkaloidal Co., Chicago.

STREPTO-BACTERIN (SCARLATINA BACTERIN) POLYVALENT.—Abbott Alkaloidal Co., Chicago.

ANTISTREPTOCOCCIC VACCINE (SCARLATINA PROPHYLACTIC).—Abbott Alkaloidal Co., Chicago.

STREPTO-BACTERIN (HUMAN) POLYVALENT.—For description of Streptococcus Vaccines see N. N. R., 1913, p. 226. Abbott Alkaloidal Co., Chicago.

TYPHO-BACTERIN POLYVALENT.—Abbott Alkaloidal Co., Chicago.

TYPHOID PROPHYLACTIC.—For description of Typhoid Vaccine see N. N. R., 1913, p. 227. Abbott Alkaloidal Co., Chicago (*Jour. A. M. A.*, Nov. 22, 1913, p. 1900).

ARHEOL.—Arheol is santalol, the chief constituent of sandalwood. Its action is the same as that of sandalwood oil, but is claimed not to cause disturbance of the stomach or the kidneys. Arheol is marketed only in the form of Arheol Capsules, 0.2 Gm. Alexandre Astier, Paris, France (*Jour. A. M. A.*, Nov. 22, 1913, p. 1900).

REFORM IN MEDICINES

DEAFNESS-CURE FRAUDS.—The name of the deafness cure quack is legion. Some carry an alleged cure for deafness as a "side-line," some sell on the mail-order plan their worthless "course of treatment" while still others, and these probably are in the majority, dispose of, at an exorbitant price, devices that are trivial, worthless and often dangerous. The following are some "deafness cure" concerns: Dr. L. C. Grains Company (formerly Dr. Guy Clifford Powell), Chicago, Dr. Edward E. Gardner, New York City, George P. Way, Detroit, Mich., and George H. Wilson, Louisville, Ky. (*Jour. A. M. A.*, Nov. 1, 1913, p. 1645).

THE FRIEDMANN CURE.—After studying the cases inoculated by Dr. Friedmann at Montreal, Ottawa, Toronto and London, Ontario, a committee of the Canadian Association for the Prevention of Tuberculosis has reported unfavorably on the treatment (*Jour. A. M. A.*, Nov. 1, 1913, p. 1648).

TRYPSOGEN.—Besides exploiting a clay poultice, "Antithermoline," the G. W. Carnick Company appears to be chiefly concerned in the promotion of "internal secretion" specialties. Thus it markets the diabetes remedy, "Trypsogen" tablets, said to contain "the enzyme of the islands of Langerhans with the tryptic and amylolytic ferments of the pancreas" along with gold bromid and arsenic bromid; Secretogen Elixir, said to be "prepared from gastric secretin obtained from the pyloric antrum and pancreatic secretin from the duodenum, combined with the enzymes of the peptic glands, and one-twentieth of one per cent HCl"; Secretogen Tablets, said to be "prepared from prosecretin and succus entericus obtained from the epithelial cells of the duodenum, combined with pancreatic extract"; Kinazyme, "a preparation of extract of spleen, reinforced with trypsin, amyllopsin and calcium lactate." While great claims have been made for Trypsogen and while it has been most widely advertised, it is the opinion of the most eminent students of the question that pancreas is not efficacious in diabetes. Trypsogen should be considered as an unscientific shotgun mixture. When the Council on Pharmacy and Chemistry paid less attention to the therapeutic worth of a proprietary preparation, both Antithermoline and Trypsogen were admitted to New and Nonofficial Remedies. They were dropped some years ago, when the Council revised its rules (*Jour. A. M. A.*, Nov. 1, 1913, p. 1649).

RADIO-ACTIVE WATERS.—All naturally occurring waters, even rain water, are somewhat radio-active. While the waters of Hot Springs, Ark., have been investigated by the Department of the Interior, this information has been suppressed "for administration reasons." It is stated only that the waters are "radio-active to a marked degree," a statement which might have emanated from a patent medicine manufacturer (*Jour. A. M. A.*, Nov. 1, 1913, p. 1649).

THERAPEUTIC NAMES.—Claiming that physicians demand that they be supplied with "a pill for every ill" most pharmaceutical houses supply "Pills Gonorrhea," "Pills Spermatorrhea," "Pills Leukorrhea," "Pills Dysmenorrhea," etc. Therapeutically suggestive names for medicines lead to thoughtless use by physicians and to counter-prescribing druggists. That the use of therapeutic titles is not an economic necessity is illustrated by the fact that E. R. Squibb & Sons are discarding such titles (*Jour. A. M. A.*, Nov. 1, 1913, p. 1650).

MOUTH WASHES.—Recent investigations seem to show that adherence of mucin caused decay of the teeth. So-called antiseptic mouth washes and alkaline washes do not remove this mucin and therefore do not prevent decay of the teeth. The vegetable acids such as fruit juices and diluted vinegar are the most successful agents for the removal of mucin (*Jour. A. M. A.*, Nov. 8, 1913, p. 1718).

PENNYROYAL, TANSY AND OTHER. "EMMENAGOGUE OILS."—An examination of the oils of pennyroyal, tansy, savin, rue, thyme, turpentine and of apiol proves that they have no specific or directly stimulating action whatever on the uterine muscles; on the contrary they inhibit the contraction of the uterus and even paralyze it. If these oils exhibit any emmenagogue or abortifacient action whatever, it is due to a general constitutional poisoning or gastro-intestinal irritation and not to any specific action in accord with the intent for which they are sometimes administered (*Jour. A. M. A.*, Nov. 8, 1913, p. 1725).

MOUTH WASHES.—Such polypharmacy as is represented by the complex solutions, official and proprietary, used as mouth washes is nonsense. In them the value of useful ingredients is obscured by the useless shrubbery which surrounds them. A dash of this and a dash of that in these mouth washes or gargles is simply playing to the galleries (*Jour. A. M. A.*, Nov. 15, 1913, p. 1812).

THE ACTION OF ATOPHAN.—It has been recognized that the administration of Atophan increased the elimination of uric acid and that there was a possibility that a greater production of uric acid is induced by the drug—a result which would scarcely encourage its use in therapy. Recent investigations, however, favor the view that the drug merely stimulates the kidneys to abstract from the blood a greater quantity of the purin end-product than it normally would (*Jour. A. M. A.*, Nov. 15, 1913, p. 1818).

BAUGHN'S PELLAGRA REMEDY.—A booklet issued for Baughn's Pellagra Remedy, American Compounding Co., Jasper, Alabama, suggests symptoms of all kinds as an indication of pellagra. If you have any of these, the inference is that the "grim specter," pellagra, has you in its grasp! Horror is piled on horror in the most approved "patent medicine" style, reaching as a grand climax a description of "the last stages" and closing with the peroration: "And the last stage, till now—the MAD HOUSE and DEATH." As the exploitation of this nostrum interfered with the attempts of health officers to eradicate pellagra in Alabama, it was analyzed in the A. M. A. Chemical Laboratory. The nostrum comes in two forms, capsules and a powder for external use. The capsules were found to contain charcoal, basic iron sulphate and a little quinine. The powder was composed of common salt and basic iron sulphate (*Jour. A. M. A.*, Nov. 15, 1913, p. 1828).

REGULIN.—Regulin is agar-agar (*N. N. R.*, 1913, p. 20) to which some cascara preparation has been added. The product at one time was described in the Appendix to New and Nonofficial Remedies as follows: A mixture of agar-agar in a dry form with extract of cascara sagrada representing 15 per cent. of an aqueous fluid-extract of cascara sagrada (*Jour. A. M. A.*, Nov. 15, 1913, p. 1832).

WATERBURY'S COMPOUND.—Waterbury's Compound—called Waterbury's Metabolized Cod-Liver Oil Compound until the A. M. A. Chemical Laboratory showed it contained practically no cod-liver oil—was one of the proprietary preparations advertised both in "display" form and also in the form of an "original article," in the *Army and Navy Medical Record*—a fraudulent publication that offered its editorial pages for sale. Physicians are now receiving from the Waterbury Chemical Company, a reprint of what purports to be an editorial from the *Army and Navy Medical Record* entitled, "One of America's Most Valuable Preparations." The preparation, of course, is "Waterbury's Compound" (*Jour. A. M. A.*, Nov. 15, 1913, p. 1830).

SENSITIZED VIRUS-VACCINE.—Besredka asserts that the injection of living germs sensitized in certain ways produces a more substantial immunity and greater production of antibodies than the injection of germs killed by heat or in other ways. In apes sensitized typhoid bacilli gave absolute protection, causing no fever or reaction, while killed bacilli failed to protect adequately. As a result of these experiments a number of "sensitized virus-vaccines" have been prepared and the antirabic vaccine used in France is now a sensitized virus. Before the employment of the sensitized typhoid virus-vaccine can be considered, much evidence must be produced that there is no danger of producing typhoid carriers and that this vaccine gives any better protection than the vaccine now in use. Similar objections hold against other vaccines of this kind and at present the obstacle to the use of such living germs for protective purposes would seem to be quite impassable (*Jour. A. M. A.*, Nov. 15, 1913, p. 1814).

BERLEDETS.—This is an anti-fat remedy sold under the claim that dieting and exercise are unnecessary, but directions for which recommends moderation in diet and free exercise. Examination in the A. M. A. Chemical Laboratory showed the nostrum to consist of tablets, each containing about 9 grain of boric acid, along with corn starch and milk sugar. It is evident that Berledets will cure obesity only by seriously interfering with digestion (*Jour. A. M. A.*, Nov. 22, 1913, p. 1917).

THE MORLEY EAR-PHONE.—The Morley Invisible Ear-Phone, Morley Company, Philadelphia, Pa., is nothing more or less than the old, well-known Toynbee artificial drum-head. It consists of a circular piece of oiled silk about one-quarter inch in diameter, through the center of which a piece of silk thread has been passed, for the purpose of holding the oiled silk in position. A small piece of flexible tubing comes with it to aid in inserting the device in the ear. The indiscriminate sale of a device of this sort, especially at exorbitant prices and under fraudulent claims, is not merely an injury to the purse, but a distinct menace to the health of the deaf (*Jour. A. M. A.*, Nov. 22, 1913, p. 1919).

VEROFORM GERMICIDE OMITTED FROM N. N. R.—Veroform Germicide is described in New and Nonofficial Remedies, 1913. It is a formaldehyde soap solution, containing 20 per cent. of formaldehyde. The report of the U. S. Public Health Service on commercial disinfectants having shown Veroform Germicide to have a phenol coefficient of but 0.43, the manufacturers of the preparation were asked to present evidence to

justify the term "germicide" in the name and the claim that it has more bactericidal effect than phenol. As the Veroform Co. produced no evidence to substantiate the questioned claims, the Council on Pharmacy and Chemistry voted to omit the preparation from New and Nonofficial Remedies (*Jour. A. M. A.*, Nov. 22, 1913, p. 1920)

BOOK REVIEWS

THE PRACTICAL MEDICINE SERIES. Comprising Ten Volumes on the Year's Progress in Medicine and Surgery, Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology, Chicago Post-Graduate Medical School; Charles L. Mix, A.M., M.D., Professor of Physical Diagnosis in the Northwestern University Medical School. Price of series, \$10.

Volume I. GENERAL MEDICINE. Edited by Frank Billings, M.S., M.D., Head of the Medical Department and Dean of the Faculty of Rush Medical College, Chicago, and J. H. Salisbury, A.M., M.D., Professor of Medicine, Chicago Clinical School. Pages, 404. Price, \$1.50.

Volume II. GENERAL SURGERY. Edited by John B. Murphy, A.M., M.D., LL.D., Professor of Surgery in the Northwestern University, Attending Surgeon and Chief of Staff of Mercy Hospital, Wesley Hospital, St. Joseph's Hospital and Columbus Hospital; Consulting Surgeon to Cook County Hospital and Alexian Brothers' Hospital, Chicago, Ill. Pages, 632. Price, \$2. Chicago, The Year Book Publishers, 327 S. La Salle Street, 1913.

Volume I is composed of a rather detailed consideration of infectious diseases, diseases of the circulatory system, diseases of the blood and blood-making organs, diseases of the ductless glands, diseases of metabolism, the urine and diseases of the kidneys. Under the treatment of tuberculosis, considerable space is devoted to that by artificial pneumothorax, and the technique of Robinson and Floyd is given somewhat in detail as well as the apparatus illustrated. From the review of the literature in this volume on the subject as well as that appearing in the current magazines of the year just passed, the outlook from the use of this agent seems exceedingly encouraging. A most creditable review is made of diseases of the heart and blood vessels, while the review of the diseases of the ductless glands is not so comprehensive.

Doubtless another year will find considerably more space devoted to the study of nephritis, experimental and otherwise, than finds space here.

One of the most interesting features of Volume II, Dr. Murphy's volume, is, as would be expected, the discussion on bone surgery. Probably no other living surgeon could better take up this phase of surgery than he. On the other hand, his discussion on surgery of the thyroid and parathyroid glands, particularly as to exophthalmic goiter, seems more meagre than the present development of thyroid surgery would warrant.

That part of the volume dealing with the surgery of the stomach and intestines is exceedingly full and satisfactory.

RECENT METHODS IN THE DIAGNOSIS AND TREATMENT OF SYPHILIS. The Wassermann Serum Reaction and Ehrlich's Salvarsan. By Carl H. Browning, M.D., and Ivy McKenzie, M.A., B.Sc., M.B., Ch.B. Lea & Febiger, Philadelphia and New York, 1912. Price \$4.

This work is divided into two parts. In the first part the authors discuss in detail the fundamental principles underlying the phenomenon of hemolysis. The Bordet-Gengou phenomenon of deviation of complement is then illustrated and its application in the diagnosis of syphilis made clear.

The next eighty pages record the numerous painstaking researches the authors carried out with the various substances used in making the Wassermann reaction to determine the best technique for performing the test. The technique advised is based on the results of these researches.

A most instructive chapter deals with the clinical application of the test and the enormous light it has thrown on many cases of obscure illness in which syphilis would ordinarily not be considered as being an etiological factor.

The occurrence of the Wassermann reaction in the cerebrospinal fluid in the so called parasymphilitic diseases and in syphilis of the nervous system is fully discussed and a comparison made of this reaction with the Noguchi (butyric-acid) test, the alcohol precipitate, Nonnes (ammonium sulphate) test and the cytologic findings.

Part two considers the treatment of lues with salvarsan. The early experiments with various arsenical preparations on animal protozoal infections are detailed and finally the results of the use of salvarsan in syphilis in rabbits. A résumé is given of the experiments which have lead to the conclusion that it is entirely improbable that prolonged treatment with nonsterilizing doses of salvarsan leads to the development of arsenic-resisting strains of spirochaetes. A complete review of the literature on the treatment by salvarsan of syphilis as well as other diseases is given.

The large and carefully recorded personal experience of the authors in the use of salvarsan adds great value to the book.

One of the final chapters of the work is most instructive. It gives a complete tabulated record of the reported fatalities due to the use of salvarsan, and ends with a discussion of the contra-indications as established by careful study of these cases.

SYPHILIS AND THE NERVOUS SYSTEM, FOR PRACTITIONERS, NEUROLOGISTS AND SYPHILOLOGISTS. By Dr. Max Nonne, Chief of the Nervous Department in the General Hospital, Hamburg, Eppendorf. Authorized translation from the second revised and enlarged German edition, by Charles R. Ball, B.A., M.D. J. B. Lippincott Co., Philadelphia and London. Price, \$4.

This book needs no introduction, as Dr. Nonne's first edition of "Syphilis of the Nervous System," as well as his numerous contributions to literature, have caused his recognition as one of the world's most eminent authorities on diseases of the nervous system and particularly on syphilis of the nervous system, so that we have presented in this work a most vital subject by one most competent to present the same. The importance of *lues nervosa*, because of its frequency, terrible prognosis when not recognized and curability when recognized, is self-evident. Dr. Nonne has written

this book with the idea uppermost of presenting the subject in such a way that it will assist the practitioner first of all.

Following a most instructive introduction, the sequence of pathological changes and the resulting chain of signs and symptoms is depicted in a most admirable manner. The specially important role that endarteritis plays in this infection is brought out in a striking way. After the general discussion of pathology and symptomatology the author treats of the different forms produced in the various parts of the nervous system, taking up in logical sequence the vertex and base of the brain, the spinal cord, and peripheral nerves. The relationship of syphilis of the brain to certain neuroses and psychoses as well as general paralysis is presented.

The great importance that the "four reactions" (consisting of the Wassermann reaction in the blood and spinal fluid, the test for globulin and the cell count of the spinal fluid) have in clearing up doubtful cases of *lues nervosa* is forcibly emphasized, and the technique (except the W. R.) for performing these tests given. The last two chapters deal with the measures necessary to prevent syphilis from affecting the nervous system and the modern technical details for treating syphilis after it has attacked the nervous system.

The striking characteristic of the book is its practicability. This feature is materially augmented by the presentation of concise histories of cases, illustrating the various clinical manifestations of disease described. The author has certainly accomplished his purpose of writing a book "out of the practice for the practice."

GOLDEN RULES OF DIAGNOSIS AND TREATMENT OF DISEASES. Aphorisms, Observations, and Precepts on the Method of Examination and Diagnosis of Diseases, with Practical Rules and Proper Remedial Procedure. By Henry A. Cables, B.S., M.D., Professor of Medicine and Clinical Medicine of the College of Physicians; Consultant at Jefferson Hospital; formerly House Physician at Alexian Brother's Hospital, St. Louis. Pp., 318. Cloth, \$2.25. Second Edition Revised and Rewritten. C. V. Mosby Co., St. Louis, 1913.

The appearance of the second edition of this interesting little work is evidence of a justifiably generous reception by the profession of a brief epitome of a number of the more essential points of some of the problems of medicine. In this second edition new matter has been added, the whole carefully gone over and proper corrections made. The work remains valuable from the standpoint of *multum in parvo* and offers a quick means of refreshing the mind of the busy practitioner on some of the most salient points of differential diagnosis as well as treatment.

HYGIENE AND SANITATION. A Text-Book for Nurses. By George M. Price, M.D., Director, Joint Board of Sanitary Control; Director of Investigation, New York State Factory Commission. 12mo, 236 pages. Cloth, \$1.50 net. Lea & Febiger, Publishers, Philadelphia and New York, 1913.

In his preface to this valuable little work, Dr. Price pays a glowing tribute to the part played by the nurse in the modern propaganda for reform along the lines of preventive medicine. This is entirely just and to anyone with experience, the name of trained nurse becomes unavoidably linked with things that pertain

to prophylaxis. In many instances her function along this line exceeds that even of the physician and so it becomes imperative that she have the privilege of a bibliography devoted entirely to her place in this line of work. Naturally many of the disputed points and minor details that would find place in a text-book for the practitioner are omitted and cognizance is taken of the points that have already been impressed upon the nurse along this line in her under-graduate work.

The chapters on the hygiene of foods and food supply together with its tables of caloric values of the various foods, must needs appeal to all nurses interested in modern dietetics. Under the hygiene of occupations many subjects are taken up which must be of interest to all nurses, such as occupational dangers, industrial insurance, etc. The work closes with a very creditable résumé on hygiene of municipalities and personal hygiene.

PREVENTIVE MEDICINE AND HYGIENE. By Milton J. Rosenau, Professor of Preventive Medicine and Hygiene, Harvard; formerly Director of the Hygienic Laboratory, U. S. Public Health Service. Pages, 1074. Cloth, \$6. New York and London: D. Appleton & Co., 1913.

The appreciation of the subject of preventive medicine and hygiene has now reached such a point as to be expressed in the establishment of schools designed to fit practitioners for just this work. One of the few schools has been instituted at Harvard University and at its head has been placed the author of this excellent work, Milton J. Rosenau. From his broad experience in the United States Public Health Laboratory, as a special investigator of certain American and continental epidemics and as a private worker in this field of medicine, as well as a hard student and instructor in this work, Dr. Rosenau is, more than anyone in this country, especially fitted to produce a comprehensive a text-book upon the subject. Indeed, a perusal of his work reveals the fact that there is in it the exhibition of all known facts upon the different phases of the subject in so satisfactory a manner as to leave absolutely nothing to be desired. While advantage has been taken of a large bibliography, yet the book is not burdened with citations from such and represents the best established and most potent facts gleaned from this source, as well as from the author's very extensive experience.

The first part of the book deals with the prevention of communicable diseases, venereal prophylaxis, heredity, immunity, eugenics and similar subjects. The second part takes up our environment in relation to health and disease, including a discussion of food, water, air, soil, disposal of wastes, vital statistics, diseases of occupation, industrial hygiene, school hygiene, disinfection, quarantine, isolation, and other topics of sanitary importance and indeed all subjects of interest to health officers.

There are in all 157 illustrations, a large number of valuable statistical tables and data for ready reference, and a text so concise and yet comprehensive that the work is not limited in its interest merely to the health officers, but becomes an almost necessary adjunct to all general practitioners who are and should be interested in questions of preventive medicine. Indeed, we know of no work as yet appearing in the English language which deals with these subjects in so comprehensive and satisfactory a way.

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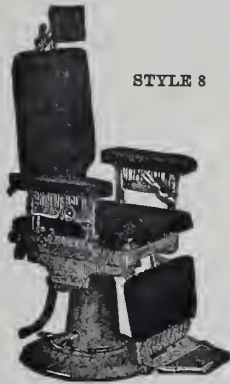
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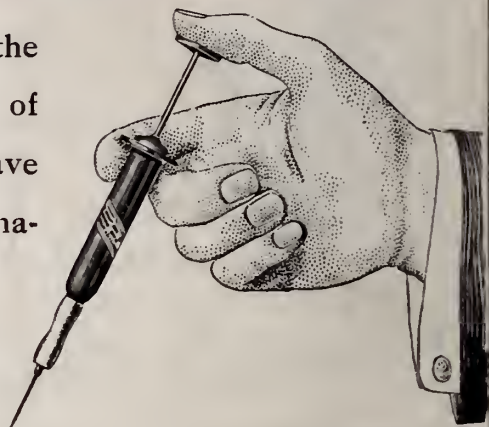
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